

GRAIN & FEED JOURNALS

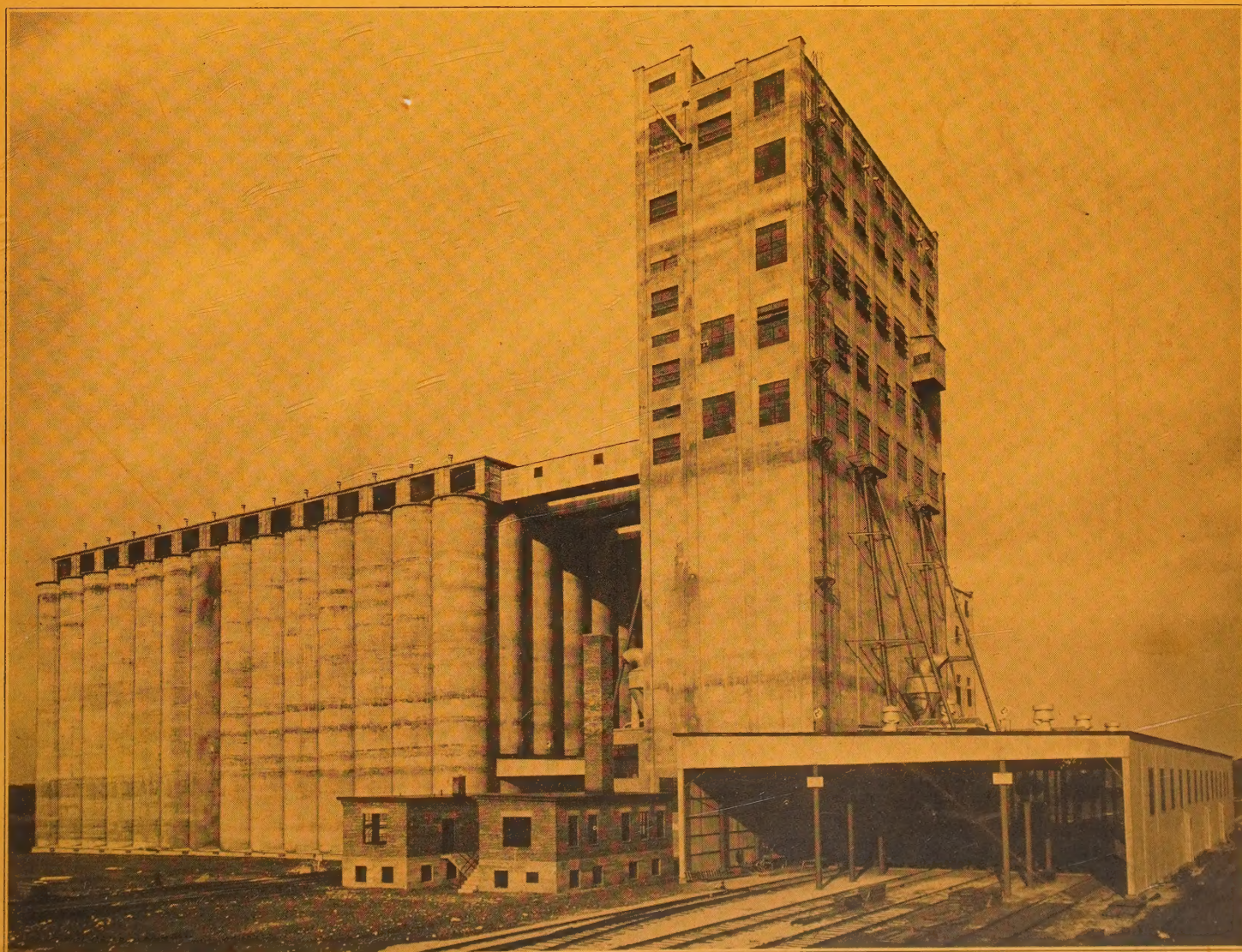
CONSOLIDATED

A Merger of Grain Dealers Journal, American Elevator & Grain Trade, Grain World and Price Current-Grain Reporter.

In This Number

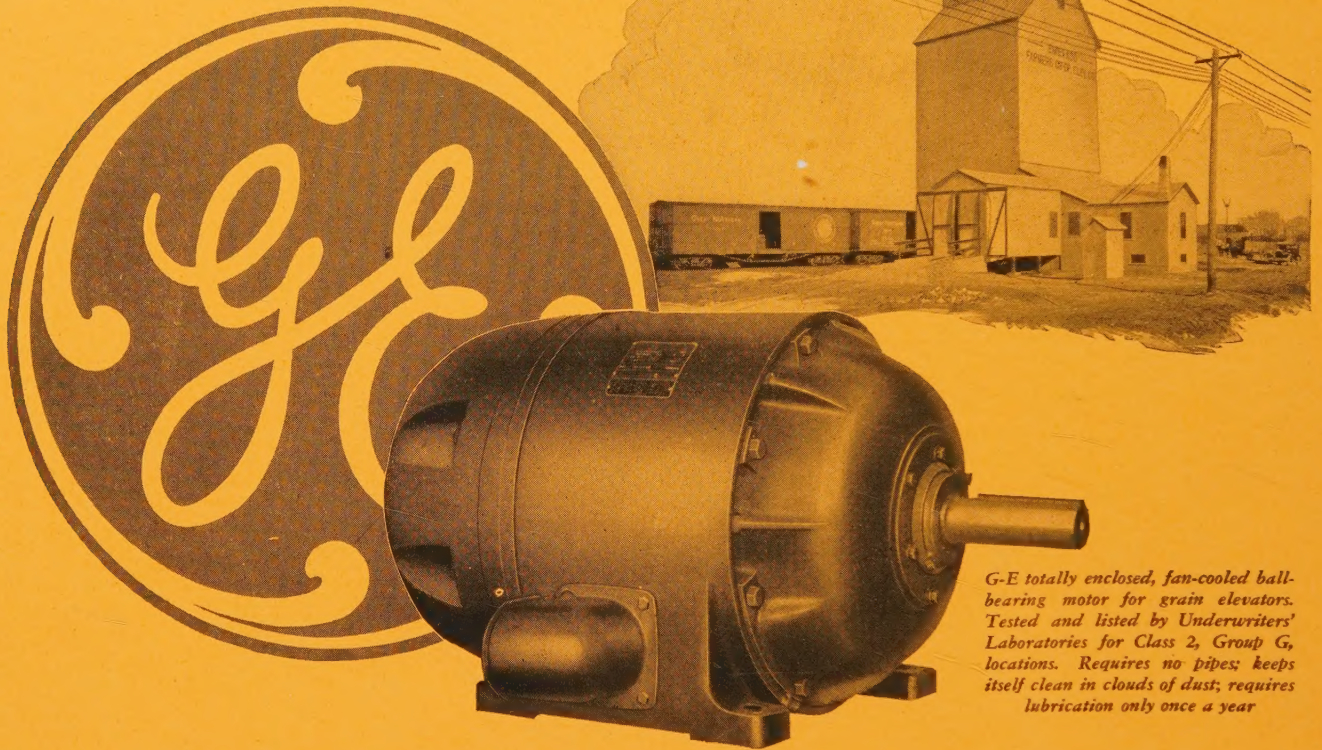
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The Continental Elevator of the Missouri Pacific R. R. at Kansas City, Mo.
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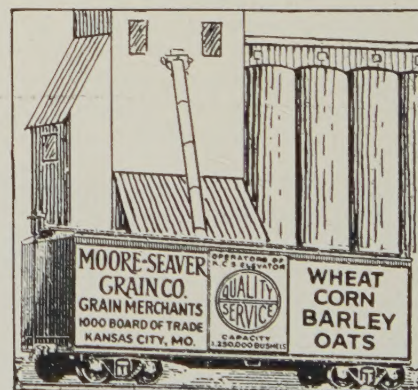
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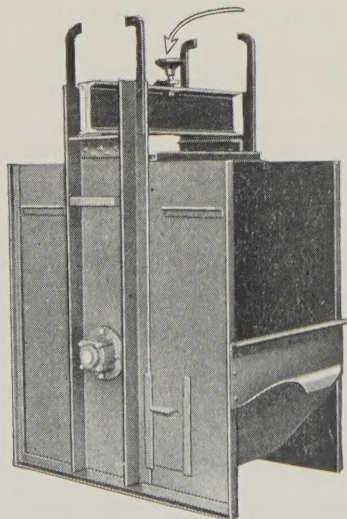
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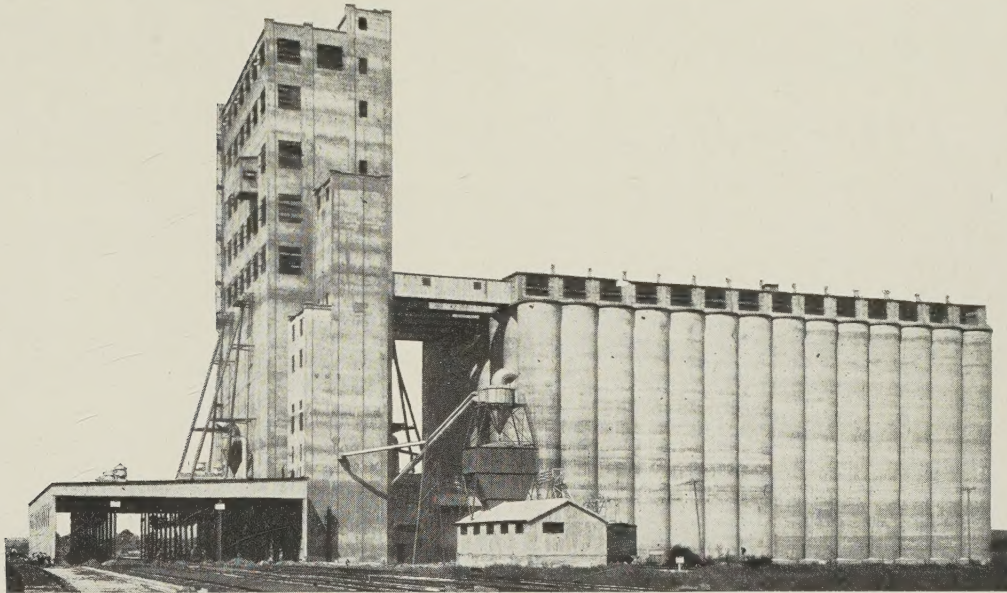
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Boots	Oat Huller
Buckets	Plans of Grain Elevators
Car Liners	Portable Elevator
Car Loader	Power { Oil Engine
Car { Fuller	{ Motors
Car { Pusher	Power Shovel
Car Seals	Railroad Claim Books
Cipher Codes	Renewable Fuse
Claim (R. R.) Collection	Rope Drive
Clover Huller	Safety Steel Sash
Coal Conveyor	Sample Envelopes
Corn Cracker	{ Truck
Conveying Machinery	Scales { Hopper
Distributor	{ Automatic
Dockage Tester	Scale Tickets
Dump	Scarifying Machine
Dust Collector	Screw Conveyor
Dust Protector	Seed Treating { Machine
Elevator Leg	{ Chemicals
Elevator Paint	Separator
Feed Formulas	Sheller
Feed Ingredients	Siding-Roofing { Asbestos
Feed Mixer { Dry	{ Steel or Zinc
{ Molasses	Silent Chain Drive
Feed Mill	Speed Reduction Units
Fire Barrels	Spouting
Fire Extinguishers	Storage Tanks
Friction Clutch	Testing Apparatus
Grain Cleaner	Transmission Machinery
Grain Drier	Waterproofing (Cement)
Grain Tables	Weevil Exterminator
Hammer Mill	Wheat Washer

Draw a line through the supplies wanted, and write us regarding your contemplated improvements or changes. We will place you in communication with reputable firms specializing in what you need, to the end that you will receive information regarding the latest and best.

INFORMATION BUREAU

Grain & Feed Journals, 332 So. La Salle St., Chicago



The Continental Elevator

MISSOURI PACIFIC R. R. Co.

Kansas City, Mo.

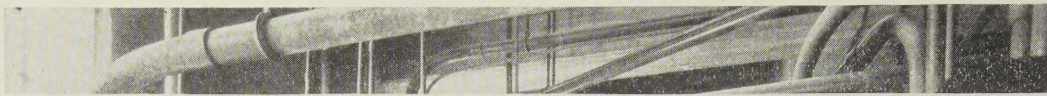
Capacity 2,500,000 Bushels

We express our appreciation for the co-operation of the contractors, manufacturers, engineers and workmen who helped make possible the completion of this elevator in the limited time allowed.

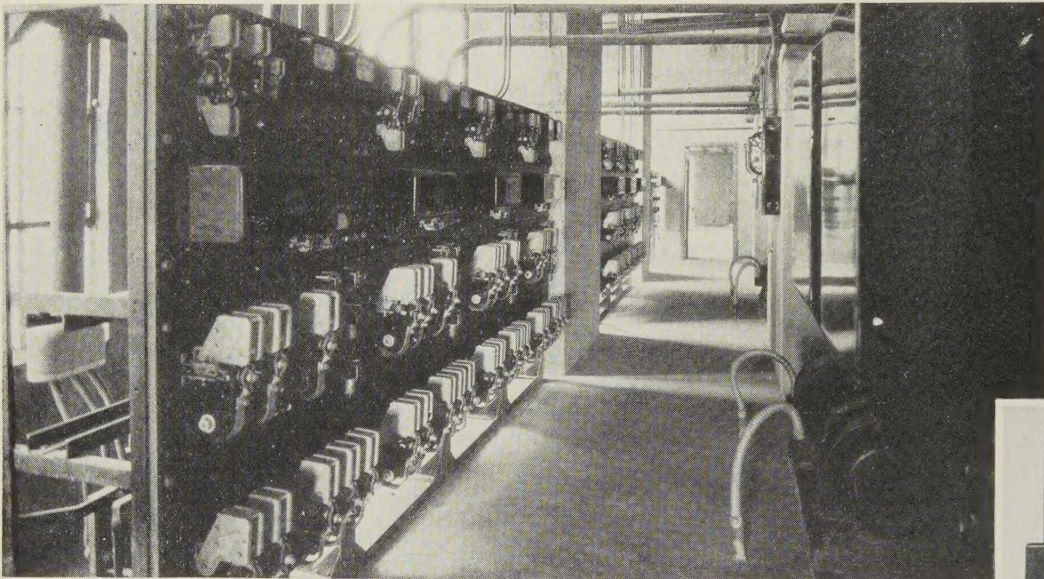
EDWIN AHLKOG

Engineer and Contractor

Chicago, Illinois



For Safety—Use Allen-Bradley Control



A row of Allen-Bradley 150 h.p. automatic synchronous-motor starters in Missouri Pacific elevator. One of the starting panels is shown below.

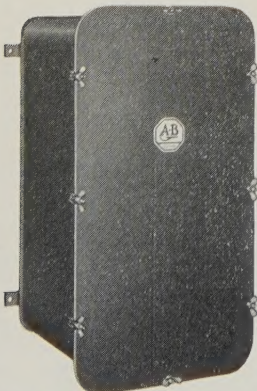


PROTECT your plant and your workmen by using safety automatic control. Allen-Bradley Automatic Motor Starters, as used in the new Missouri Pacific Continental Elevator, give full protection to workmen, motors, and driven machines. Wherever dust is encountered, all control panels and push buttons are encased in standard dust-tight cabinets. Positive interlocks on the enclosing covers prevent the switches from operating except when the dust-tight covers are properly closed. Allen-Bradley controls meet the specifications of the Board of Fire Underwriters and the National Electrical Manufacturers Association for grain and feed elevators and other installations presenting dust hazards. Consult the nearest Allen-Bradley office regarding your control problems. Bulletins will be sent on request.

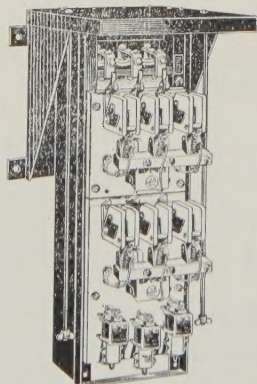


Dust-tight reversing push-button station. Other Allen-Bradley dust-tight stations have single and two buttons.

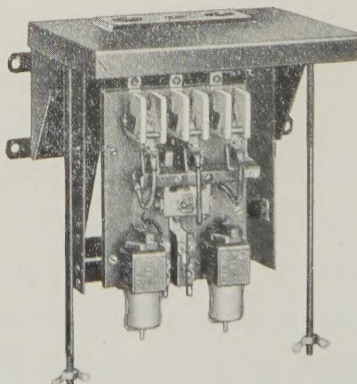
Allen-Bradley Company, 1305 S. First St., Milwaukee, Wis.



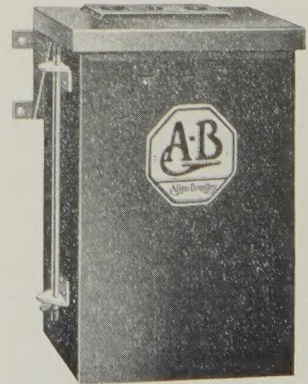
Allen-Bradley Bulletin 745DT Transformer-Type Starter, with dust-tight cover.



Bulletin 740DT starter, with dust-tight enclosure removed to allow inspection.



Open view of Bulletin 720DT dust-tight starter, showing switch and overload relays.



One of the 42 Allen-Bradley Bulletin 720DT starters used in the Missouri Pacific elevator.

Allen-Bradley

AUTOMATIC CONTROL FOR EVERY SERVICE

Low power and insurance rates assured by choice of motors for new Kansas City elevator



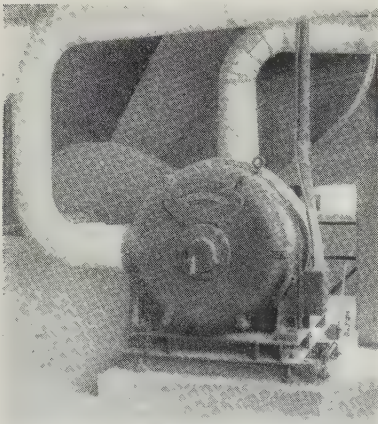
The new Missouri-Pacific Continental Elevator at Kansas City, Mo., is equipped with 65 Fairbanks-Morse Motors.

Missouri-Pacific Continental elevator is the first to employ a combination of pipe-ventilated, enclosed synchronous motors and pipe-ventilated or fan-cooled induction motors throughout

The modern Missouri-Pacific Continental Elevator at Kansas City, Mo., designed by Edwin Ahlskog, is the first large terminal elevator to be equipped with enclosed motors throughout. It is also the first elevator in which a combination of enclosed synchronous motors and induction motors is employed.

Selection of motor equipment (65 F-M motors) for this important installation was influenced by two considerations. First, by employing electrical machinery which not only meets the requirements of the National Electric Code, but anticipates future additions to the code, substantial savings on insurance rates are made possible. Secondly, by using F-M Synchronous Motors in seven large legs of the elevator, penalties for low power factor are avoided.

One of the 7 totally enclosed, pipe ventilated Fairbanks-Morse 150 HP. Synchronous Motors used in the modern Continental Elevator.



Power factor correction by the use of synchronous motors is especially important in this field as the largest portion of the load is generally fluctuating in character. Squirrel cage motors have a low lagging power factor under low loads and power rates are therefore increased. The F-M Synchronous Motors in the new Kansas City elevator are excited to carry full load at unity power factor. Under full load the squirrel cage motors driving the conveyors will have a high power factor. But when, under low load, these motors have a low lagging power factor and the synchronous motors will have a leading power factor. The resultant power factor will be high enough to escape penalty.

Every elevator operator should be interested in the economies made possible by scientific application of electrical machinery to the requirements of the job. Your request for complete information about Fairbanks-Morse synchronous and induction motors will be answered promptly and without obligation to you.

FAIRBANKS, MORSE & CO.

900 S. Wabash Ave., Chicago

32 branches at your service throughout the U. S.

FAIRBANKS-MORSE *motors*

5574-FA22,25

Power. Pumping and Weighing Equipment

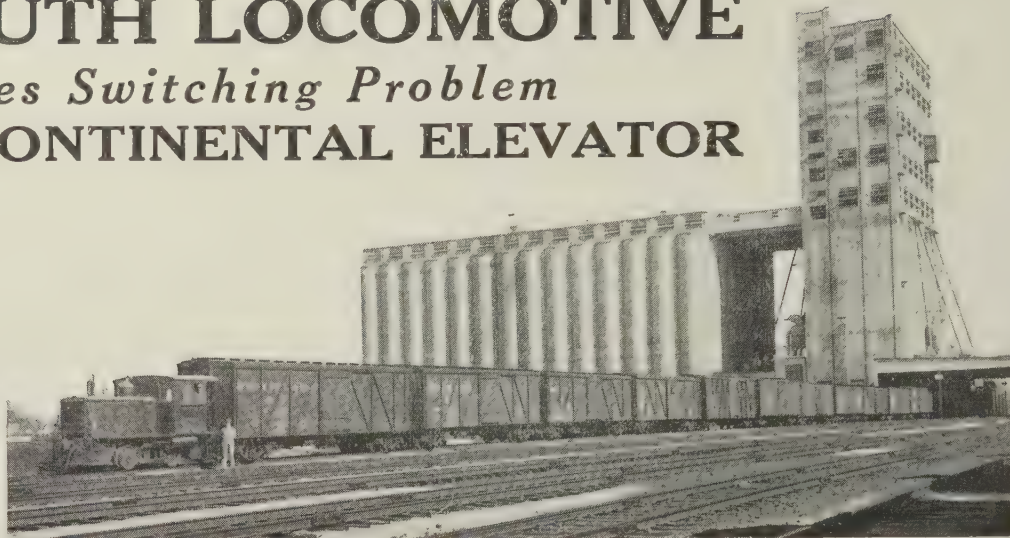


PLYMOUTH LOCOMOTIVE

Solves Switching Problem

for NEW CONTINENTAL ELEVATOR

Plymouth Gasoline and Diesel Locomotives are built in a full range of sizes from 2½ to 80 tons. Write for Catalogs.



AT the fine new Continental Elevator designed by Edwin Ahlskog for the Missouri Pacific Railroad at Kansas City, Mo. this 30 ton Plymouth Gasoline Locomotive was chosen for

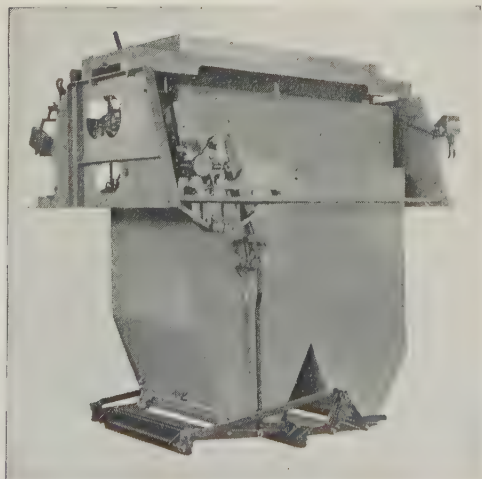
switching and spotting the cars to the Richardson Car Dumper. Dependable, economical haulage was the deciding factor. If you have a haulage problem, put it up to Plymouth.

THE FATE-ROOT-HEATH CO., PLYMOUTH, OHIO
(Plymouth Locomotive Works)

Higher Speed In Loading and Unloading Cars

is now possible with the

RICHARDSON AUTOMATIC GRAIN SCALE



25 bushels per discharge

3000 bushels of oats per hour

4000 bushels of wheat per hour

Now it is possible to load or unload cars in less than half the former time.

In actual service, this scale has weighed 4500 bushels of OATS in one hour!

Requires less headroom, is faster, costs less, and has longer operating life than previous models!

EQUIP NOW FOR SPEED!

Write for prices and catalog 1219-B NOW

RICHARDSON SCALE COMPANY

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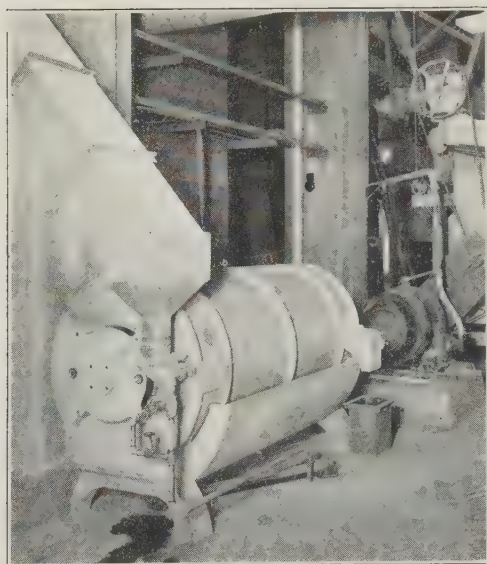
Los Angeles

Agents for Canada, Messrs. Peacock Brothers Limited, Montreal



Anti-Friction Equipped Great Western Conveyors and Trippers in Continental Elevator, Kansas City.

Continental Elevating & Conveying Equipment—All Great Western



Great Western Wheat Washer in Continental Elevator

We appreciate the opportunity that has been given us to play a role in furnishing equipment such as conveyors, trippers, elevators, spouting, car pullers, wheat washer, power transmission machinery, etc., in the Continental Elevator of the Missouri Pacific R. R. and take pride in the confidence that has permitted this association.

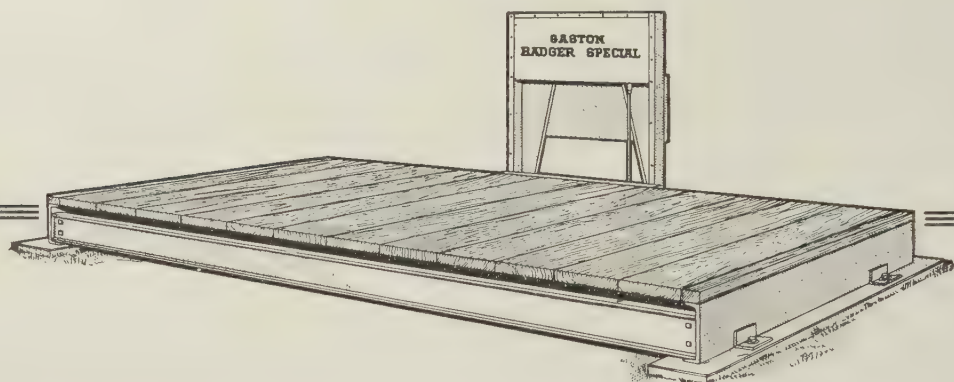
Great Western equipment is designed for economical operation and is ruggedly built to give the maximum of service at the lowest possible cost for upkeep.

Competent engineers in our employ will be glad to assist the engineer or builder of grain handling plants in selecting equipment best adapted to the requirements. This service is at your disposal.

GREAT WESTERN MFG. CO.

*Manufacturers of Complete Equipment for
Grain Elevators, Flour, Cereal and Feed Mills*

LEAVENWORTH, KANSAS - - - KANSAS CITY, MO.



For those small elevators and other locations that do not warrant the expense of the full pit type Motor Truck Scale, Gaston has developed the

BADGER SPECIAL MOTOR TRUCK SCALE

These scales built in suitable platform sizes and capacities up to 15 tons—are of the self contained pattern with heavy steel framing, ample clearances, requiring rigid supports at each end only.

They are guaranteed to pass all official tests and inspection.

Write for bulletin describing this new economy scale.

THE GASTON SCALE CO.

Beloit, Wis.

In business 90 years. Not a part of any scale combine.

Zeleny Thermometer Co.

542 S. Dearborn St. Chicago, Ill.

*Protect Your Grain With the
Zeleny Thermometer System*

Estimates cheerfully given.
Write us for catalog No. 6.

1902 TRI-STATE MUTUAL 1931 GRAIN DEALERS FIRE INSURANCE CO.

LIVERNE, MINN.

We write Fire and Windstorm Insurance covering Grain Elevators and contents, also Dwellings and Mercantile property.
(DIVIDENDS ANNUALLY FOR 28 YEARS)

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W. J. Shanard, V. P., Bridgewater, S. D. E. H. Moreland, Sec., Luverne, Minn.

Duplicating Scale Ticket Book

A labor saving scale ticket book in which the buyer keeps a carbon copy of the entries made on every scale ticket issued, so altered or spurious tickets may be readily detected.

This book contains 200 leaves, 100 white bond, machine perforated leaves bearing 800 tickets of form shown, interleaved with 100 blank manila sheets. Supplied with 4 sheets of No. 1 carbon paper, size 8½x11 inches. Order Form 62. Price, \$1.60, f. o. b. Chicago. Weight, 3 lbs.

Cash with order for twelve books earns 10% discount.

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Load of _____	
Price _____ per cwt.	Gross _____ lbs.
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Driver—On. Off.	Net _____ lbs.
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One-fourth actual size.

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*Do You Transport Stock
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All hazards of transportation
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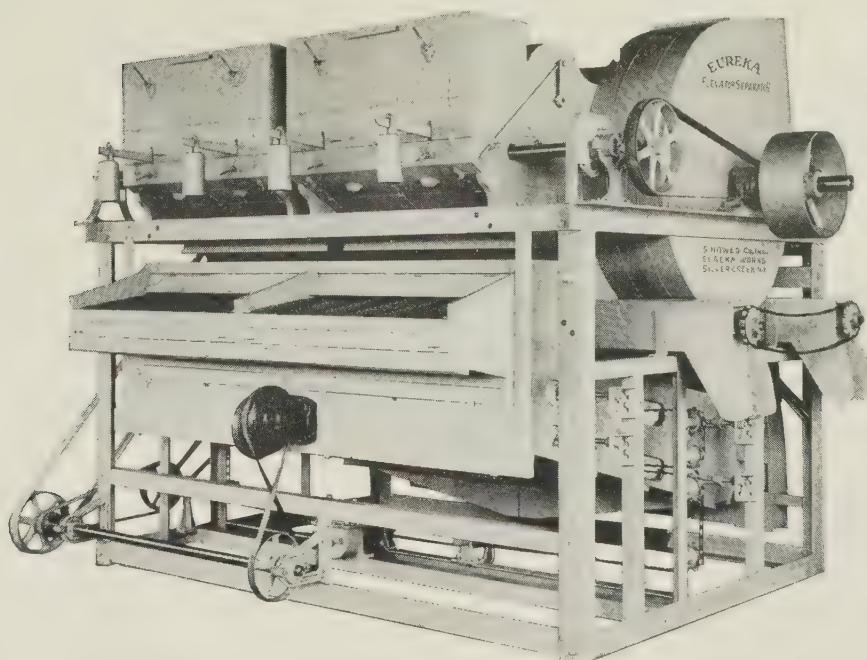
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*Write your insurance company
or agency for particulars
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MUTUAL FIRE PREVENTION BUREAU

230 E. Ohio Street

Chicago, Illinois



*Buhler-equipped, Eureka Steel Separator built for the Pioneer Flour Mills, San Antonio, Tex.
This 4,500-bushel machine's shoe is operated by a one-inch belt.
This patented system of shoe driving entirely does away with the old fashioned, troublesome eccentrics.*

EUREKA BUHLER DRIVEN SEPARATORS

The greatest of all improvements in cleaners for the last 20 years

Charles G. Dawes recently said, "What we know as the business depression will end just as soon as the optimists outnumber the pessimists." Owen D. Young's comment on the situation was, "It only takes intelligence, courage and good will to make a prosperous world." It is evident that there are *optimists* in the grain trade and there are men who have *courage*. These recent sales of Buhler-driven separators indicate their *good will* toward Eureka grain cleaners:—

Missouri Pacific R. R. Co.....	two 6000-bu. machines
Pioneer Flour Mills	one 4500-bu. machine
Burrus Panhandle Elevator.....	two 4000-bu. machines
Wellington Terminal Elevator Co.....	one 4000-bu. machine
Nye & Jenks Grain Co.....	one 3000-bu. machine
Fowler Commission Co.....	one 2500-bu. machine
Chehalem Valley Mills.....	one 1200-bu. machine

Elsewhere in this Journal will be found a detailed description of the Missouri Pacific R. R. Company's new elevator at Kansas City. For this important job the Howes Company furnished two No. 15 Eureka Armored Separators, a No. 37 Eureka Armored Oat Clipper and two Invincible Giant Armored Dust Packers.

The Buhler Drive is Applicable not only to New Separators but Used Machines also.

Write for Catalog GD125

S. HOWES CO., Inc.
SILVER CREEK, N. Y.

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CHALMERS & BORTON

620 Pioneer Trust Bldg., KANSAS CITY, MO.

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Grain Elevators — Feed Mills — Warehouses

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Grain Elevators Flour Mills
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Geo. W. Quick & Sons

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Concrete Grain Elevators

Waterproof Pits a Specialty

CRAMER ELEVATORS

are preferred elevators because each is designed and built to fit the individual needs of the owners.

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Plans and Specifications Furnished

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Designers and Builders of

GOOD ELEVATORS

Let us furnish your machinery

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Western Engineering Co.

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Contractors and Builders of
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D. G. EIKENBERRY

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Elevators, Mills, Warehouses

Designed, Built, Repaired

Estimates Cheerfully Furnished

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Corn Exchange

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T. E. IBBERSON CO. — Grain Elevator Builders

Feed Mills — Coal Plants — Repairing and Remodeling
MINNEAPOLIS MINNESOTA

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503 Keeline Bldg. OMAHA, NEBR.

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Flour Mills - Cement Plants
Coal Pockets

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GALVESTON WHARF COMPANY'S NEW ELEVATOR "B"

Capacity 6,000,000 Bushels

This Elevator Designed and Construction
Supervised by

HORNER & WYATT

Consulting Engineers to the Grain Trade
470 Board of Trade Kansas City, Mo.

The Grain Trade's

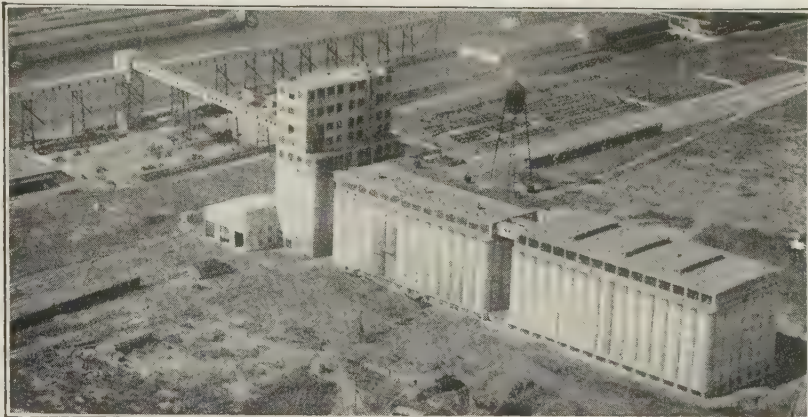
accepted medium for "Wanted" and "For
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Grain & Feed Journals Consolidated

YOUR NAME

where every progres-
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see it, will convince
them you are equipped
to serve them.

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OF CHICAGO



FOLWELL ENGINEERING CO.
Engineers—Constructors
 333 No. Michigan Ave.
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Addition of
 2,500,000 Bushels to the
 Port Commission Elevator
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Santa Fe Elevator "A"
 Kansas City, Kans.

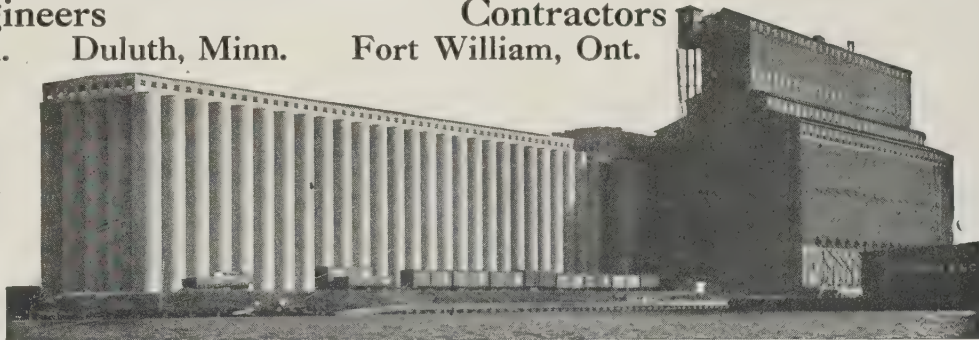
Capacity
 10,500,000 Bushels

John S. Metcalf Co.,
Grain Elevator Engineers and Constructors
 105 W. Adams St., Chicago 460 St. Helen St., Montreal 837 W. Hastings St., Vancouver, B. C.
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The Barnett and Record Co.

Engineers **Contractors**
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Designed and Built
 this 3,000,000 Bushel
 Grain Storage Annex
 to Great Northern
 Elevator "S"
 Superior, Wis.

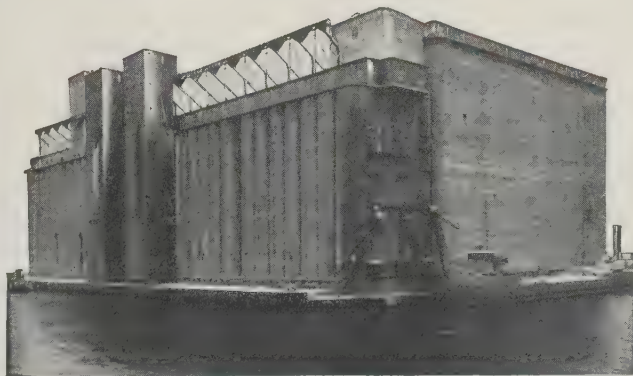


International Milling Co.

Buffalo, N. Y.

Capacity 5,000,000 Bushels

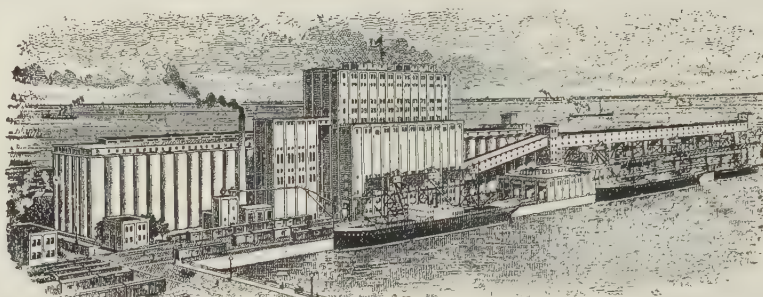
Designed and Built by Us in
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Grain Elevators, Flour and Feed Mills
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GRAIN ELEVATOR BUILDERS

Capacity
5,000,000
Bushels



Equipped with
Four Stewart
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Unloaders

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JAMES STEWART CORPORATION
ENGINEERS AND CONTRACTORS

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PRESIDENT
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"Kills Weevil — Leaves Wheat with a Sweet Odor"

The following letter was written by the elevator superintendent of one of the larger western elevator companies (name on request) to the president of his company:

USE
LARVACIDE
(Chlorpicrin)

The Self-Announcing
Fumigant

"In reference to treating wheat with Larvacide. We use a five gallon can for a supply can. We have a container fastened to the can, with a glass gage so we can tell how much gas we are using to a thousand bushels. This can is fastened on the spout from the tripper, and the gas is sprayed on the wheat as it enters the bin. We use two pounds of Larvacide to one thousand bushels of wheat. We have had very good success with this method of treating wheat. We have not had any badly infested wheat, so it would be hard to tell what percentage of kill we get. I do know that it kills weevil, and leaves the wheat with a sweet odor, that some other weevil killers do not do."

This letter is conclusive—proving our contention that Larvacide is the Ideal Fumigant for grain elevators, feed warehouses, flour mills and seed warehouses.

USE LARVACIDE—the fumigant that is quick and certain death to pests of every nature—rats, mice, weevil and moth—yet whose pungent odor serves as a definite warning to humans.

Send for complete details and address of our nearest representative today.

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Larvacide Service, Inc., S. W. Warehouse Corp. Bldg., 19th
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Fifty confirmations in triplicate, bound with pressboard and wire stitched, size 5 1/2 x 8".

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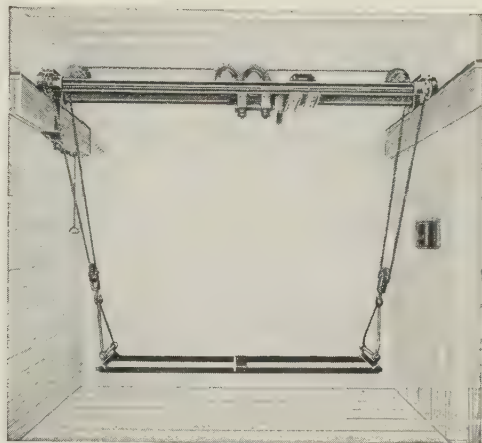
This places the entire burden for any misunderstanding of your intentions upon the other party and protects you against the expensive misinterpretation of your trades.

To BUY or SELL RENT or LEASE an ELEVATOR

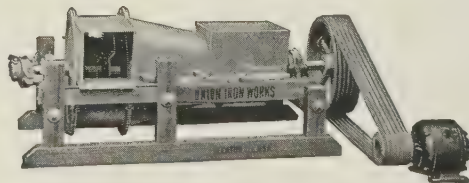
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— GRAIN ELEVATOR EQUIPMENT —
EFFICIENT — STURDY — RELIABLE — MODERN



Overhead Electric Truck Dump



Western Pitless Sheller with Cog Belt Drive

A GOOD DRIVE FOR ANY MACHINE

SHELLERS AND CLEANERS
HYATT ROLLER BEARINGS
SPEED REDUCERS
WORM GEAR HEAD DRIVES

UNION IRON WORKS, Decatur, Ill.

Too Many Bosses



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Cover's Dust Protector

Rubber Protector, \$2.00
Sent postpaid on receipt
of price; or on trial to re-
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matic valve and fine sponge

H. S. COVER
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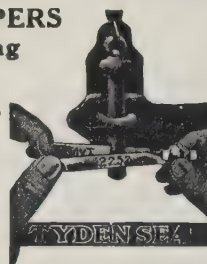


10,000 SHIPPERS Are now using

TYDEN CAR SEALS

Bearing shipper's
name and con-
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Prevent
CLAIM LOSSES
Write for samples
and prices.



INTERNATIONAL SEAL & LOCK CO.

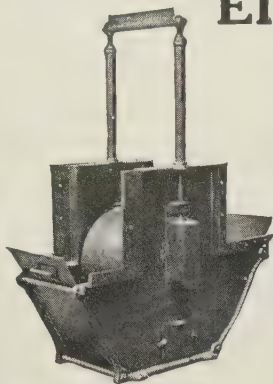
Railway Exchange Bldg., Chicago, Ill.

Leaking Car Report Blanks

bear a reproduction of a box car and a form showing all points at which a car might leak, thus facilitating reporting specific places where car showed leaks at destination. One of these blanks should be sent with papers for each car with the request that it be properly filled out and returned in case of any signs of leakage. Printed on Goldenrod bond, size 5½x8½ inches, and put up in pads of 50 blanks. Order Form 5. Weight, 3 ounces. Price, 40c a pad; three for \$1.00. Prices f. o. b. Chicago.

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Elevator Boot

Ball Bearing, Low Intake, Non-chokeable, Automatic Takeups, 20" Diameter Pulley, Large Capacity.

Use Rubber Covered Cup Belt—It Pays

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COMPANY**

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Headquarters for
GOOD ELEVATOR EQUIPMENT

For European Markets

on grain, flour and feed products
best and most reliable information is
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"German Grain Journal"

a sample copy of which will be
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Known the world over for reliability and
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A complete line of Rotary Driers and
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The Ellis Drier Co.

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Record of Cars Shipped

This double page form is designed especially for
country shippers in keeping a complete record of
each car of grain shipped from any station or to any
firm. On each double page are the following column
headings: Date Sold, Date Shipped, Car No., Initials,
To Whom Sold, Destination, Grain, Grade Sold,
Their Inspection, Discount, Amount Freight, Our
Weight, Bushels, Destination Bushels, Over, Short,
Price, Amount, Freight, Other Charges, Remarks.

The book is 9½ x 12 inches, and contains 160 pages of
ledger paper, 29 lines to each page, and has spaces for record-
ing the foregoing facts regarding 2320 carloads. It is well
bound in strong boards with karetol back and corners.

Order Form 385. Price, \$3.00.

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Established 1893

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of the Grain & Feed Journals, Con-
solidated, the Grain Trade's long ac-
cepted medium for Wanted—For Sale
advertisements, try it.



Wanted and For Sale

The rate for advertisements in this department is 25 cents per type line each insertion

ELEVATORS FOR SALE

KANSAS—Six elevators for sale. Address 67X9, Grain & Feed Journals, Chicago, Ill.

MINN.—22,000 bu. gr. elvtr., fuel, feed and seed business for sale. Write for details or see property. W. H. Harris, Maynard, Minn.

SOUTH CENTRAL IOWA—Line of six elevators for sale at a bargain. Good grain territory. O. A. Talbott, Keokuk, Iowa.

WISCONSIN—My Grain Elevators and Feed Mill for sale or lease. Electric power and located in good feed territory. Owner wishes to retire. Edw. Wilkinson, Wilton, Wis.

YOU MAY BE MISSING SOMETHING
AN ILLINOIS elevator company running a 3 line ad in one issue says: "We had 25 applications from that ad. Thank you."

ILLINOIS—35,000 bushel new cribbed modern elevator for sale; at a way station on I. C. R. R. East of Bloomington, Ill. \$6,000. Large corn crop this year. Far. State Bank, Colfax, Ill.

NO. ILL.—Elevator for sale quick; only business at small station sells lumber, coal, building supplies. Must sell profitable business close estate. Holcomb-Dutton Lumber Company, Sycamore, Ill.

Some **SERVICE** to your ads. I sold my elevator to the first man that answered the ad. But I received a nice number of inquiries, too. Kansas Dealer.

WYOMING—25,000 bus. capac. elev. and \$50,000 to \$75,000 annual feed bus., for sale. Loc. in heart of No. Platte Valley; no trades; must be part or all cash. Other interests reas. for selling. Box C, Torrington, Wyo.

NORTH CENTRAL OHIO—17,000 bu. concrete and hollow tile elevator for sale; on Big Four R. R. Good trade in fertilizer, livestock, hay, coal and other sidelines. Good territory to draw from. Farmers Elevator Company, St. James, Ohio.

KANSAS Elevator practically sold after three insertions. Here's what the advertiser writes: "We enclose check for three insertions of our ad. We have had more than a dozen inquiries from our ad and believe that we will be able to effect a sale." This proves conclusively the value of a Journal Want-Ad.

MINNESOTA cleaning and transfer elevator for sale; 130,000 bushels; three track scales; good cleaning machinery; electric power good condition. Excellent transit location; fine dairy territory. Bargain easy terms payment. Write 66B6, Grain & Feed Journals Consolidated, Chicago, Illinois.

BARGAIN IF TAKEN AT ONCE—Some one is always looking for an elevator at a good grain point and reads these ads just like you're doing now, so if you wish to dispose of your present property, enlarge your present interests, or embark in the grain business. **USE** these columns to your best advantage just as others are doing. **WE WILL** assist you in the composition of copy free. We are in business to be of service to **YOU**. There is no wrong time to put an ad in the columns of the Journal. **TRY IT**.

ELEVATORS FOR SALE

SOUTH CENTRAL NEBRASKA—15,000 bushel elevator for sale. Fully equipped, including grinder and coal bins. In good condition. Now operating. Address 67T10 Grain & Feed Journals, Chicago, Ill.

ELEVATORS WANTED

WESTERN NEBRASKA—Want to lease or buy elevator in good corn shipping territory. Address 67W3, Grain & Feed Journals, Chicago.

WANT TO TRADE a good farm of 210 acres for an elevator. Good buildings, well fenced and ditched, close to school and town. E. A. Lewis, Green's Fork, Ind.

IF YOU DO NOT find the elevator you want advertised, place your wants in the "Elevators Wanted" section and you will receive full particulars regarding many desirable properties not yet advertised.

ELEVATOR BROKERS

ALWAYS HAVE ELEVATORS for sale. To save time, please state amount you wish to invest and location you prefer. James M. Maguire, 6440 Minerva Ave., Chicago, Ill.

ALMOST ANYTHING YOU WANT can be promptly obtained through JOURNAL want ads.

MALT PLANT AND ELEVATOR

COLORADO Malt Plant, with elevator equipped for grain storage, for sale or rent. Fully equipped, ready to operate. Side tracks, kilns, steeping tanks, conveyors, steam heated. Public demanding light wines and beers. Unusual profits and opportunity for farsighted business man. Sacrifice estate. Colorado Malt & Barley Co., Longmont, Colo.

WANT ADS WORK WONDERS

They sell elevators, find help and partners, secure machines and engines which you want, sell those for which you have no further use, and perform a myriad of kindred services for shrewd people who use them regularly. **READ AND USE THEM.**

MILLS FOR SALE

INDIANA—Complete small mill for flour and feed grinding for sale. Modern residence nearby. All for \$6,500. Terms. J. O. Wells, Peru, Indiana.

FINE OPPORTUNITY FOR RIGHT PARTY—250 bbl. Allis Roller Mill for sale. Steam and water power; good location in heart of town, 68,000 population; 4-story brick building; 50,000 bushels wheat storage; 4 acres of land surrounding mill which could be used to build storage buildings; 4 shipping points; L. V. R. R., C. R. R. of N. J., P. & R. R. R. and L. & N. E. R. R. Double siding to mill. Address Speck Bros., agents, 49 W. Broad St., Bethlehem, Pa.

SAMPLE ENVELOPES

SAMPLE ENVELOPES—SPEAR SAFETY—for mailing samples of grain, feed and seed. Made of heavy kraft paper, strong and durable; size 4½x7 inches. Have limited supply to sell at \$2.60 per hundred or in lots of 500, \$2.30 per hundred f. o. b. Chicago. Sample mailed on request. Grain & Feed Journals, 332 S. La Salle St., Chicago, Ill.

BUSINESS OPPORTUNITIES

WHATEVER your business may be, it will find a ready market if advertised in the "Business Opportunities" columns of **GRAIN & FEED JOURNALS**, Chicago. 9,800 grain men look to these columns twice each month for real opportunities.

BUSINESS OPPORTUNITY WANTED

ELEVATOR, FEED MILL or FEED STORE wanted. Must be priced right for CASH and well located in good farming community. Write Ivor V. Davis, 1126 Moravia St., New Castle, Pa.

FEED MILL FOR SALE

ILLINOIS—An up-to-date Feed mill for sale with a modern residence adjoining. R. S. Freas, Milledgeville, Ill.

WONDERFUL Opportunity for Hustler to operate a portable feed mill in community. Price of mill \$1,200, sold on very easy terms but must give best of references. Mill has larger capacity than any other portable mill on the market.—D. Dwyer, Oelwein, Iowa.

FLOUR MILL FOR SALE

KANSAS—For sale to settle an estate, 500 barrel concrete flour mill; 60,000 bus. concrete tanks; 50,000 bus. steel tank. Three iron-clad elevators within radius of 14 miles of mill. Write Colburn Bros. Co., McPherson, Kans.

Bargain Sale in Soiled and Shelf Worn Books

Scale Ticket Copying Book.—Contains 600 original leaves and 600 duplicates. The leaves are machine perforated between tickets so they may be easily removed. Printed on bond paper, check bond, size 9½x11 inches, and supplied with 6 sheets of No. 1 carbon. Only one shelf-worn copy left. Form 73 "Special." Special price 75c. Weight 2¼ lbs.

Memo of Agreement.—Grain contracts for contracting grain and seed from farmers; is extensively used by grain dealers to avoid taking chances with verbal contracts. Originals are printed on bond paper, machine perforated so they may be easily removed; duplicates are also on bond paper. Check bound, 50 sets to a book with two pieces of carbon paper. Order by name, special price 75 cents to close out.

The Grain Shipper and the Law.—Every dealer in the United States should secure a copy of this book and refer to it in every difference with the carriers. It contains digests of the State Supreme, U. S. Circuit and Supreme Court decisions affecting every phase of the grain trade, especially the shipper's relations to the carriers, and will often save the user a great deal of litigation. Such subjects as Time for Filing Claims, Natural Shrinkage, Loss of Grain in Transit, Overcharges and Undercharges in Freight, Delivery on Forged, or Without Bs/L, Distribution of, and Failure to Furnish Cars, Delays, Grain Doors, and many others too numerous to mention, are treated in full. It is indexed and cross indexed so that anyone can readily locate any decision of interest, and no dealer can afford to try to do business without becoming fully posted as to his own privileges and the rights of others. Book contains 176 pages, size 6x9 inches, printed on book paper, and bound in velum de luxe. Sells regularly for \$2. One soiled book available for \$1. Order by name. "Special."

All prices are f. o. b. Chicago.
GRAIN & FEED JOURNALS Consolidated
332 South LaSalle St. Chicago, Ill.

SITUATION WANTED

EXPERIENCED Elevator Manager wants position as manager of elevator. "References." Address R. J. Wilson, Chester, S. D., No. 271.

MARRIED MAN, 32, wants position as manager of large farm or estate. Experienced. Joseph Vaughn, R. 6, Box 57, Waukesha, Wis.

WANT POSITION as elevator manager; 15 yrs. exper. Best of refs. Prefer Central Ohio. Write 67X11, Grain & Feed Journals, Chicago.

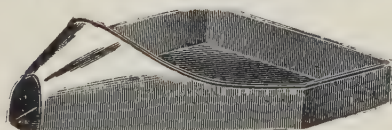
DESIRE POSITION as elevator manager in eastern or central Nebraska. Have had good experience. Best of references. Write 67U19 Grain & Feed Journals, Chicago, Ill.

SITUATION WANTED as manager of country elevator; 10 yrs. exper. Experienced in handling coal, lumber, feeds and fertilizer. Can give references if desired. Prefer Ind., but will consider any other proposition offered. Write 67X14 Grain & Feed Journals, Chicago, Ill.

HELP WANTED

TWO THOROUGHLY EXPERIENCED and Capable country elevator managers wanted. We want men with first class references, and men who can handle not only grain, but all sidelines as well. Write 67U7 Grain & Feed Journals, Chicago, giving full details in first letter.

COMPETENT AND EXPERIENCED elevator managers, foremen, bookkeepers, auditors, second men and solicitors can easily and quickly be found through an ad in the "Help Wanted" column of the Grain & Feed Journals, Consolidated, Chicago, Ill.

SAMPLE PANS

Made of sheet aluminum, formed by bending, reinforced around top edge with copper wire. Strong, light, durable. The dull, non-reflecting surface of the metal will not rust or tarnish; assists users to judge of the color and to detect impurities.

Grain Size, $2\frac{1}{2} \times 12 \times 16\frac{1}{4}$ ", \$2.00 at Chicago.

Seed Size, $1\frac{1}{2} \times 9 \times 11$ ", \$1.65 at Chicago.

GRAIN & FEED JOURNALS
CONSOLIDATED
332 So. La Salle St., Chicago, Ill.

FIELD AND GRASS SEED FOR SALE

WHEN YOU want field or grass seed, write us, and we will put you in communication with nearby dealers, who have what you seek. The service is free. Information Bureau, Grain & Feed Journals, 332 S. La Salle St., Chicago, Ill.

BEANS FOR SALE

BEANS—N. Y. State and Michigan. Belden & Co., Geneseo, N. Y.

BEANS—Straight or assorted cars, all varieties. R. J. Murphy, 149 California St., San Francisco, Calif.

MOTOR SERVICE

ELECTRIC MOTORS repaired, rented and sold. Independent Electric Machinery Co., 300 Southwest Blvd., Kansas City, Mo.

MOTORS FOR SALE

ELECTRIC MOTORS For Sale—Hundreds of "Rockford Rebuilt" machines, all makes, types and sizes available for immediate shipment. All thoroughly overhauled and reconditioned, fully covered by our "One Year Guarantee" against electrical or mechanical defects. Send for complete stock list.

BULLETIN NO. 38.

Sixty illustrated pages of motors, generators, transformers, etc., mailed free on request. ROCKFORD POWER MACHINERY COMPANY
620 Sixth Street Rockford, Ill.

RUBBER BELTING FOR SALE

GOODYEAR FRICTION Surface Rubber Belting for sale, new, high grade. 7 in. 5 ply, per ft. 40c; 8 in. 5 ply, per ft. 45c; 9 in. 5 ply, per ft. 50c. Port Huron Machinery Co., Minneapolis, Minn.

Hedging by Dealing in Grain Futures

By G. Wright Hoffman, Ph.D.

A subject of much interest to all handlers of grain; not a fragmentary discussion but a presentation of the subject in a comprehensive and scientific manner.

This book, bound in cloth, 141 pages, includes, besides an extensive bibliography, chapters on: The Development of Futures Trading and the Practice of Hedging; The Theory of Hedging; Limitations Affecting Hedging; The Extent of Hedging; Extension of the Principle of Hedging.

This is a valuable book and will be worth to you many times its cost.

Price \$2.00 f. o. b. Chicago

Grain & Feed Journals

Consolidated

332 S. LaSalle St. Chicago, Ill.

Receiving Books For Grain Buyers

Duplicating Contract Book, for the purchase of grain from farmers. Contains 100 originals printed on bond paper and perforated, and 100 duplicates on manila, with ruled spaces on the back for entering amounts delivered, numbered in duplicate. Check bound, size $5\frac{1}{4} \times 8\frac{3}{4}$ inches, supplied with four sheets of carbon. Order Form 10DC. Price \$1.15. Weight 1 lb.

Receiving and Stock Book for keeping a record of each kind of grain received in separate columns, so buyer may easily determine total amount of any kind of grain on hand. Size $9\frac{1}{4} \times 11\frac{1}{2}$, 200 pages, with a capacity for 4000 wagon loads. Well printed on linen ledger paper, bound in strong board with leather back and corners. Order Form 321. Price \$3.00. Weight $2\frac{3}{4}$ lbs.

Scale Ticket Copying Book contains 150 leaves of scale tickets, four to a leaf. Each leaf folds back upon itself, so that with the use of carbon paper, it will make a complete copy of the original on the stub, with one writing. Original tickets forming the outer half of leaf are machine perforated. Printed on bond paper, check bound, size $9\frac{1}{2} \times 11$, supplied with four sheets of carbon. Order Form 73. Price, \$1.55. Weight 2 lbs.

Grain Scale Book, a combined Journal and Receiving book with index. Each man's grain is entered on his own page, or a page may be allotted to each kind of grain received. Both debits and credits are posted to the ledger. Contains 252 numbered pages and index, size $10\frac{1}{4} \times 15\frac{1}{2}$, and will accommodate 10,332 wagon loads. Printed on linen ledger, bound in extra heavy black cloth covers, with leather back and corners. Order Form 23. Price \$4.75. Weight 5 lbs.

Grain Receiving Register is designed for recording the receipts of wagon loads of grain. Loads may be entered in consecutive order, or different sections of the book may be devoted to different kinds of grain. Book contains 200 pages of linen ledger paper, size $8\frac{1}{2} \times 14$ inches, each of which is ruled for 41 entries, giving a total capacity of 8200 wagon loads. Well printed and substantially bound in full canvas. Order Form 12AA. Price \$3.00. Weight 3 Lbs.

Duplicating Wagon Load Receiving Book, designed to facilitate the recording of number of loads from one farmer in a short time. Book contains 225 leaves, size 12×12 inches with 33 lines each, perforated down the middle; the inside half of the leaf remains in the book, and the outer half with the same ruling printed on the reverse side, folds back over the left half with carbon between. Outer half is given to farmer. It may also be used by line agents in making daily reports to headquarters. Check bound with canvas back, nine sheets of carbon. Order Form 66. Price \$3.00. Weight $4\frac{1}{2}$ lbs.

Grain Receiving Ledger, may be used first as a Stock Book by posting the receipts daily, weekly or monthly from some other portion of this book, or from any other scale book, giving a page to the commodity handled; Second, as a patrons' ledger, by giving a full or half page to each patron; Third, pages may be used to enter each load of grain received in consecutive order under their respective commodity headings. The book contains 200 numbered pages with 44 lines each, and marginal index in front, size $8\frac{1}{2} \times 13\frac{1}{2}$, ruled with the usual column headings, including Debit and Credit columns. Printed on linen ledger paper and well bound in black cloth sides with keratol back and corners. Order Form 43. Price \$3.50. Weight 3 lbs. Form 43XX contains 400 pages same as above. Price \$5.50. Weight $4\frac{1}{2}$ lbs.

All Prices are for Chicago Delivery.
Postage Extra.

Printed and Supplied by

Grain & Feed Journals
Consolidated

332 South La Salle St. Chicago, Ill.

Modern Methods**GRAIN & FEED JOURNALS**
CONSOLIDATED

Gentlemen:—In order to keep posted on modern methods of elevator management, I wish to receive the *Grain & Feed Journals Consolidated* semi-monthly. Enclosed find Two Dollars.

Name of Firm.....

Capacity of Elevator

Post Office.....

.....bushels

State.....

MACHINES FOR SALE

BARGAINS—Truck Dump, Truck and Loading Scales, Feed Mill Mixer and Sheller all O. K. Freeland Farm Supply, West Point, Ind.

FOR SALE—Elevator buckets, shafting, pulleys, corn crackers, Draver Feeders and other feed mill equipment. Cheap. W. J. Byrnes, 3149 S. La Salle St., Chicago, Ill.

HAMMER MILL for sale, J. B. Humdinger No. 2, with 30-h.p. motor and texpore drive, complete and in good condition. Chas. McCormick Co., Logansport, Indiana.

NEW AND SLIGHTLY USED Horizontal and Vertical Batch Mixers, both for motor and belt drive. At attractive prices. P. O. Box 5088, Gateway Station, Kansas City, Mo.

BATCH MIXERS—New Horizontal type, all capacities. **NEW LOW PRICES**, write for details and price list now. Standard Mill Supply Co., Waldheim Bldg., Kansas City, Mo.

FOR QUICK SALE

Motor and belt driven single and double head attrition mills, slightly used, fully guaranteed. Wire, phone or write for extremely attractive prices. **DIAMOND HULLER CO.**, Winona, Minn.

NEW AND REBUILT MACHINERY

1 Air Blast Car Loader; 1 Car Puller; 1 Large Dings Magnetic Pulley; Elevators, all sizes; 2-ton Freight Elevator; 1 Humphrey Manlift; Belt Conveyors; ½, 1, 4 and 7-bu. Richardson Automatic Scales; Hopper Scales; Exact Weight Scales; 1000 lb. Batch Mixer, Cold Molasses Mixer; 1 Bag Piler; 1 Special New Wheat Cleaner; Cleaners and Separators, all makes and sizes; 1 Corn Cutter; 1 Corn Cracker and Grader; Corn Shellers; Corn Meal Bolters; Corn Scourers; Hammer Mills, new and used; 18, 20, 22 and 24" Motor Driven Attrition Mills; all sizes in Belt Driven Mills; Diesel Engines and Motors. Special price on 28" Canvas Belt. Everything for the Feed Mill and Elevator. We Sell for Less. Write your Wants. **A. D. Hughes Co.**, Wayland, Mich

MACHINES FOR SALE**REAL BARGAINS**

Prompt Attention. Quick Shipments. When in need of elevator or mill machinery, notify us. We are headquarters for power and transmission equipment, and have on hand several well-known makes of motors, boilers, engines, etc.

Send us list of all your wants. We can supply you with full line of machinery for elevators, flour, corn and cereal mills. Complete equipment for modern mills of all kinds, molasses, stock and poultry feed plants, plans, specifications, flow sheets, etc., our specialty.

Write us without delay.

SPROUT, WALDRON & CO.
9 S. Clinton St., Chicago, Ill.

MACHINES WANTED

SECOND HAND Oat Clipper wanted, without scalping shoe and fan—State specifications, age, condition and price. **Kasco Mills, Inc.**, Toledo, Ohio.

BAG CLOSING Machines Wanted, 9x24 Roller Mills, Hammer Mills, Mixers. Give price and full description. Address 67X1, Grain & Feed Journals, Chicago, Ill.

ELEVATOR LEG wanted complete, 12-6" cups, 20 in. head pulley, 35 to 40 ft. long; good condition and cheap. **R. H. Tolle & Co.**, Hillsboro, Ohio.

SCALES FOR SALE

SECOND HAND scales for sale of any make, size or price, always find ready buyers when represented in the "Scales for Sale" columns of **GRAIN & FEED JOURNALS Consolidated**.

IMPROVED DUPLICATING GRAIN TICKETS

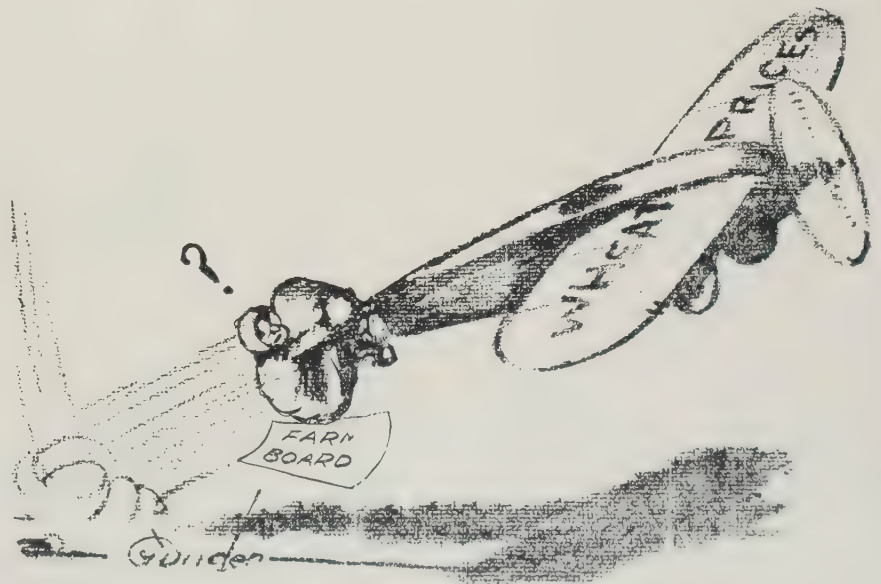
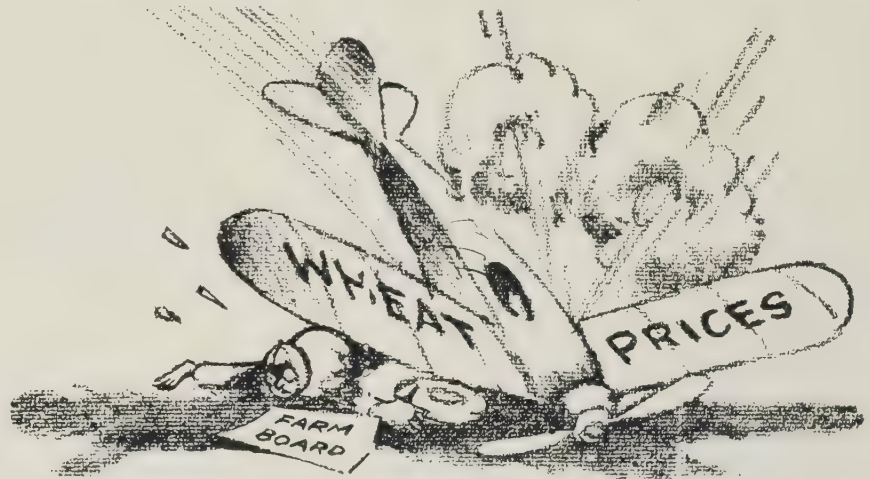
With the use of Form 19GT as a scale book much time and labor will be saved as one writing with the use of carbon will give you a complete record and at the same time, a ticket will be ready for the hauler. Very convenient for dealers who regularly issue scale tickets for each load of grain received. Chance of error will be minimized as both the ticket and office record will be the same.

This book contains 250 leaves. Each of the 125 original leaves bears four scale tickets, is machine perforated, printed on white bond, size of tickets 3x6½ inches. The 125 duplicates are printed on manila, but not perforated. Check bound at top of tickets with hinge top cover, 500 tickets in each book arranged horizontally. Size of book 7½x12 inches, each book supplied with 5 sheets of carbon.

The printing is crosswise the ticket and has spaces for the following record: "Owner, Hauler, Grain, Grade and Dockage, Gross, Tare, Net, Total Dockage, Net Pounds, Bushels, Price and Amount, Storage Ticket No., Station Ticket No., and Date, Weigher, Name of Firm or Buyer." Order Form 19 GT. Price \$1.50.

GRAIN & FEED JOURNALS Consolidated
332 So. La Salle St. Chicago, Ill.

As a Pilot the Farm Board is a Clumsy Flop



From The Gazette, Fort Wayne

Railroad Claim Books

require little of your time for filing, and contain spaces for all the necessary information in the order which assure prompt attention on the part of the claim agent. They increase and hasten your return by helping you to prove your claims and by helping the claim agent to justify payment.

- A is for Loss of Weight in Transit Claims.
- B—Loss in Market Value Due to Delay in Transit.
- C—Loss in Quality Due to Delay in Transit.
- D—Loss in Market Value Due to Delay in Furnishing Cars.
- E—Overcharge in Freight or Weight.

These claim blanks are printed on bond paper, bound in book form, each book containing 100 originals and 100 duplicates, a two-page index, instructions and summary showing just which claims have not been paid, and four sheets of carbon.

The five forms are well bound in three books, as follows:

411-A contains 100 sets all Form A. Price, \$2.00. Weight 3 lbs.

411-E contains 100 sets all Form E. Price, \$2.00.

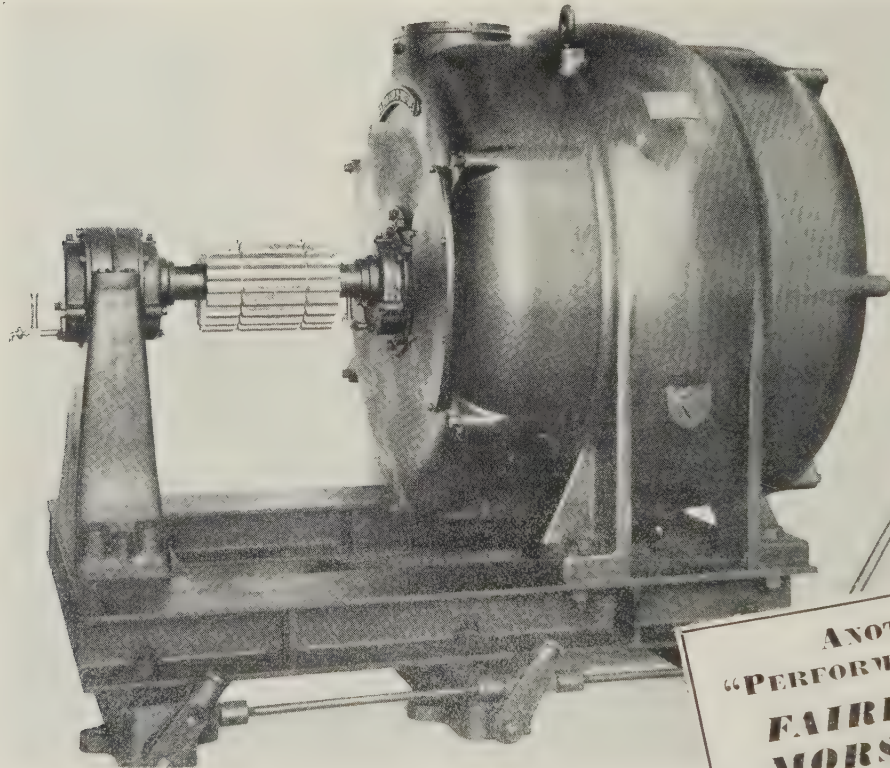
411-5 contains 60 sets Form A, 10 Form B, 10 Form C, 10 Form D and 10 Form E. Price, \$2.00.

Grain & Feed Journals
CONSOLIDATED

332 South La Salle St. Chicago, Ill.

MISSOURI-PACIFIC

SELECTS F-M MOTORS AND SKF PERFORMANCE FOR ITS NEW ELEVATOR



ANOTHER
"PERFORMANCE" USER
**FAIRBANKS.
MORSE & CO.**

WHERE PERFORMANCE TAKES PREFERENCE OVER PRICE

66 Fairbanks-Morse motors throughout the new Kansas City Continental elevator of the Missouri-Pacific Railroad are operating on **SKF** Self-Aligning Ball and Roller Bearings. It is worthy evidence of faith in **SKF** Performance and well justified . . . for a Promise is only a Promise but **SKF** Performance is History!

These motors, ranging from 5 to 175 H. P., are sure to maintain their original efficiency throughout a long

life free from electrical troubles traceable to bearing wear. The danger from hot bearings is also eliminated for **SKF**'s run cool and do not pinch or bind because of their inherent ability to compensate for any misalignment within themselves. With maintenance reduced to an easy job of replenishing lubricant but a few times a year one thing is certain . . . these motors are assured of the *lowest cost per bearing hour.*



● You may buy a bearing as a bargain but try and get a bargain out of using it, for nothing is apt to cost so much as a bearing that cost so little.

SKF INDUSTRIES, INC. 40 EAST 34th STREET, NEW YORK, N. Y.

SKF

Ball and Roller Bearings

GRAIN & FEED JOURNALS

CONSOLIDATED
INCORPORATED

332 S. La Salle St., Chicago, Ill., U. S. A.
Charles S. Clark, Manager

A merger of
GRAIN DEALERS JOURNAL
Established 1898

AMERICAN ELEVATOR & GRAIN TRADE
Established 1882

THE GRAIN WORLD
Established 1928

PRICE CURRENT-GRAIN REPORTER
Established 1844

Published on the second and fourth Wednesdays of each month in the interests of better business methods for progressive wholesale dealers in grain, feed and field seeds. It is the champion of improved mechanical equipment for facilitating and expediting the handling, grinding and improvement of grain, feeds and seeds.

SUBSCRIPTION RATES to United States and countries within the 8th Postal Zone, semi-monthly, one year, cash with order, \$2.00; single copy, 25c.

To Canada and Foreign Countries, prepaid, one year, \$3.00.

THE ADVERTISING value of the Grain and Feed Journals Consolidated as a medium for reaching progressive grain, feed and field seed dealers and elevator operators is unquestioned. The character and number of firms advertising in each number tell of its worth. Member A. B. C.

Advertisements of meritorious grain elevator and feed grinding machinery and of responsible firms who seek to serve grain, feed and field seed dealers are solicited. We will not knowingly permit our pages to be used by irresponsible firms for advertising a fake or a swindle.

LETTERS on subjects of interest to those engaged in the grain, feed and field seed trades, news items, reports on crops, grain movements, new grain firms, new grain elevators, contemplated improvements, grain receipts, shipments, and cars leaking grain in transit, are always welcome. Let us hear from you.

QUERIES for grain trade information not found in the Journal are invited. The service is free.

CHICAGO, NOVEMBER 25, 1931

ELEVATOR operators who have not had experience in analyzing cost sheets owe it to themselves and their business to employ an experienced auditor occasionally in hope of obtaining an accurate knowledge of the necessary costs of doing business and learning also wherein they can reduce their operating costs. More definite information regarding one's own business will enable every alert elevator man to operate his business more efficiently and more economically.

CORN GROWERS who are complaining of the exorbitant taxes and the high cost of producing corn should not overlook the heavy yield obtained by Herman Pankop of Auburn, Ind., who has just reported a yield of 156.2 bushels per acre. The investment in ground alone was taxable. The investment in superior seed, in fertilizer and in extra labor used in cultivating the soil in order to obtain this increased yield was not taxed. In other words there seems to be no doubt that intensive cultivation under intelligent direction will give producers much relief from low prices and high taxes.

MAKERS OF DRAFTS will be pleased to learn that the chancery court of Newton County recently reversed a decision of the Mississippi superintendent of banks, giving a Mississippi feed manufacturer preferred status against a defunct bank for the money collected on a draft. This should encourage other victims of bank failures where the facts are similar to go to the courts for their rights.

DIVORCING the government from the grain business is much easier than the politicians would have us believe. It is only necessary to put up at auction for sale to the highest bidder for cash every bushel of grain, promissory note or other asset. The proceeds, however small, will be a welcome reduction of the two billion Federal deficit. Then by abolishing the Farm Board further expense would be stopped.

BUYING grain or selling coal on weights obtained from a condemned scale is doubly expensive in some states. In Minnesota the use of such a scale is strictly forbidden, yet our news reports say it cost a dealer at Granite Falls an extra \$50 to be convinced he could not legally use a condemned scale. No dealer can afford to use a scale he does not know can be depended upon to weigh accurately.

UNGUARDED machinery in two Illinois and one Oklahoma elevator are reported in our news columns to have caused the death of one operator and the serious injury of two others. Familiarity with the machinery of any elevator seems to develop a carelessness that is extremely dangerous. Vigilance in protecting and safeguarding moving machinery is a sure, but inexpensive remedy that no elevator owner can afford to ignore.

THE RETAIL sales tax of Kentucky upheld Nov. 6 by the federal court at Louisville, Ky., is an unjust distribution of the cost of government. The small merchant will pay 1-20 of one per cent on sales up to \$400,000 annually, the percentage increasing on each \$100,000 to one per cent on \$1,000,000 or more. It does not cost the state \$10,000 a year to protect one large merchant, but it costs several times the sum to protect ten small merchants doing a trade of \$100,000 each. It is a penalty on efficiency.

A FEW RAILROADS are so pressed for money to pay the high wages of trainmen they are making exorbitant demands for rentals of sites for elevators on the right of way. One line in Illinois demanded \$30 a year rental for an acre of farm land and has gone so far as to start suit against the owner of the building that has stood there 30 years to force the removal of the large structure. Grain shippers should resist this short-sighted policy of the carriers. Without the elevator machinery, cars would have to be loaded by hand shoveling, with costly delay in movement of rolling stock. Why penalize the grain shipper who provides the railroad company with a bulk grain depot free of charge?

BURNING an elevator to cover up a shortage has become such a common practice in some sections of the country, employers check all accounts closely after every fire in hope of learning exactly what caused it.

BY EFFICIENT management the railroads have cut their operating expenses 24 per cent during the first six months of 1931 compared with the first six months of 1929, but as their earnings declined 29 per cent the only remaining recourse to maintain solvency is a reduction in wages of 10 to 25 per cent in keeping with the reduced cost of living.

CONFIDENCE in the business community would be more easily revived were it generally known that banks in the Federal Reserve system on June 30 last held a total of \$8,550,000,000, composed of \$5,350,000,000 of U. S. government securities and \$3,200,000,000 of eligible paper upon which loans could be made. These vast reserves are available whenever borrowers can see their way to earn interest on an investment. Altho there have been many bank failures there has been no general breakdown of credit as used to be the case in times of stress before the creation of the Federal Reserve System.

THE "BUY NOW" propagandists of 1930 who sought to turn the tide of depression with this short-sighted advice are no longer heard in the land. The urging seems foolish in the light of the subsequent downward movement of prices. There is a time to buy grain and all other commodities, and it will be the time when the political situation has clarified as to whether the government is to continue its paralyzing intrusion into business. Students of the cycle theory of business depression have had the year 1931 mapped as the bottom; and if they are as correct as they have been in the past the year 1932 will be the investor's golden opportunity. With the Farm Board experiment on the skids now is the grain dealers' opportunity to invest in facilities for handling the crops.

THE AGE OLD claims for storage charges due country elevators from the U. S. Food Administration Grain Corporation are farther away from payment than ever, with the recent demand by the comptroller of the currency at Washington that the local elevator give specific proof of the price paid the farmer and the price at the terminal to show that the delay in moving the grain did not result in a profit to the elevator. Here is a typical case of ignorance on the part of a public official. The fact that the grain might have been hedged, as is the best practice, makes such evidence valueless and unnecessary. How can the government now lawfully or ethically introduce into the contract a condition that was not written into it when it was signed? Is this to be the reward of the country shippers who patriotically co-operated with the government during the war? In time of peace, fortunately, we do not have to deal with the bureaucrats.

A GENERAL survey of the work of many prosecuting attorneys develops the convincing evidence that the Farm Board is not the only public offender in favor of secrecy and opposed to disclosing what it has done with public money.

BURGLARS have been busy recently blowing up elevator safes as is reported in our Ohio, Iowa and Nebraska news columns. Those who keep cash in isolated elevator offices need burglar proof safes or alarms to help protect their property.

THE GROWTH of the cash and carry chain store plan of doing business makes it much easier for the country elevator man to abandon the credit system of selling sidelines, such as feeds and fields seeds and fortunately many of them are taking advantage of the opportunity and adopting the cash plan.

THE TIME to get acquainted with your competitor is right now when there is no trouble brewing in the local situation. The establishment of proper speaking terms means that when a prevaricating farmer exaggerates the price you offered him, your competitor will feel free to call on the 'phone and ascertain the truth that cools the rising fire of his ire.

SOCIALISTIC legislation contemplated by the admirers of Soviet Russia in our Congress is creating a lack of confidence that is undermining our financial and business structure. Proof of this trend is found in the withdrawal for hoarding during the single month of October of \$293,455,276 from the banks. If the Government would about face and abandon all attempts to continue in the grain and other businesses the public would soon return to circulation in the banks the \$1,046,915,374 withdrawn during the past 12 months.

THE RELUCTANCE of law makers to correct blunders when discovered is responsible for the continuation of much ridiculous and expensive legislation that is sorely in need of repeal. All business executives are occasionally forced to reverse policies adopted because of their failure to bring about the results hoped for. The Agricultural Marketing Act has brought more distress to the farmers than they ever dreamed of having, but the politicians who are responsible for thrusting this burdensome "farm relief" upon them seem unwilling to recognize the need of remedy.

WHENEVER the evidence against the defendant is overwhelmingly convincing, counsel for the defense invariably attacks the opposing attorneys or attempts to ridicule the witnesses, so we find Burley Tobacco Stone, chairman of the Farm Board shouting a denunciation of Senator Wm. H. King and Representative Jas. M. Beck, who plan the repeal of the Agricultural Marketing Act and meekly announcing "We are not bothered much with the quibblings of peanut brains." Evidently the Chairman is convinced his "Farm Relief" racket is a complete failure.

Destroying Foreign Markets for Grain

Merchants generally throughout the world have come to recognize the full force of that oft repeated axiom that, Good Will is a priceless asset to any business which expects to continue to serve.

Near-sighted congressmen, who are directly responsible for the Agricultural Marketing Act and the attempted boosting of the market price of wheat should be enlightened by the reaction of foreign wheat buyers. First the Canadian Wheat Pool aroused the enmity of European wheat buyers by holding back supplies and trying to boost prices, then the Farm Board co-operating with the Canadian Wheat Pool made a determined effort to peg the price of wheat, thus boosting the cost of bread to European consumers and arousing the animosity of wheat importing nations until they established high import duties designed to stimulate the production of wheat and rye in larger quantities at home, and in some cases forcing the use of substitutes. This export trade in wheat had been built up by a century of consideration and fair dealing in which no attempt had ever been made to charge the foreign buyer any price other than that fixed by supply and demand.

If Congress were to consult the real interests of American wheat producers, they would condemn to perpetual punishment the racketeers who have attempted to boost the price of our wheat to foreign buyers in excess of the price justified by the world's supply.

These short-sighted, misguided agitators and promoters of so-called farm relief have done more to destroy the good will of European buyers enjoyed by the American grain trade than any other factor in the last fifty years.

In the Journal for September 23, page 330, we published an excerpt from a Digest by Dr. James E. Boyle, which discloses convincing evidence of good will destruction by the Dark Tobacco Pool. It will be remembered by many of our readers that the general manager of the Burley Tobacco Pool was none other than Chairman James C. Stone of the Farm Board.

Before the promoters of the racket interested the tobacco growers in pooling, we were producing and selling at a profit about 350,000,000 pounds of tobacco a year. Seventy-five per cent of it was exported. In

anti-pool days, Italy bought about 48,000,000 pounds a year. Pool domination of the tobacco market not only destroyed our Italian market, but it stimulated production in all importing countries and Italy instead of importing, is now an exporting country and exports now more than it formerly imported from the United States as well as supplies its domestic trade. Thus did the Pool destroy most of our foreign tobacco markets by its greed.

The feeling in England against the Canadian Wheat Pool was so intense last year, that the bakers throughout the tight little Isle posted placards in their shops, "No North American Wheat Used in Our Bread." Now that the Canadian Pool has retired the foreigners have changed their attitude, becoming heavy buyers for cash of Canadian wheat for November loading while the Federal Farm Board is still holding enormous stocks in storage.

Building an export trade is not an easy matter. It takes time, patience and persistent salesmanship, but the good will gained through years of fair dealing can be destroyed very quickly by any attempts to deal unfairly with the buyers. This should be borne in mind when any other Pool promoters come around trying to sell their schemes for so-called "orderly marketing."

The Corn Holding Delusion

The bankers and manufacturers who have come to the aid of the corn growers in a plan to raise prices by holding corn off the market are deserving of praise for their interest in the well being of the producers. The plan has the merit also of not begging the Farm Board for an advisory committee to stabilize the price at the expense of the taxpayers. It is therefore reluctantly that it must be stated the scheme is fundamentally wrong.

To begin with the plan is too well advertised. All consumers of corn will be informed that an artificial agency is raising the price. Their natural reaction is to get along without corn by employing a substitute. Those who can not do so will postpone buying until the latest date possible. The inevitable consequence is a piling up of unsalable stocks of corn. If any one doubts this outcome let him look at what happened in rubber, coffee, cotton, wheat and everything else that became tainted by monopoly.

Some degree of success always attends the early stages of these price control activities; and it is no doubt true that corn at present is several cents per bushel higher than it would be were it not for the hold your corn movement. Each year the carryover can be expected to mount until the corpse becomes impossible to dispose of. With a new crop coming on the market each year a break in the price will be threatened. Investors knowing this will hold off, leaving the producers to bear their chosen burden of carrying the surplus.

The history of the corn and wheat prices



LIFE, after all, contains only one great problem—that of so adjusting yourself to the inevitable that you can keep your peace of mind and your self-respect. The great victory of life is the conquest of worry. The greatest discovery a man can make is how to escape envy and hate.

—DOUGLAS FREEMAN.

during the depression of 1893-1896 does not offer much encouragement to holders of corn at the present time. It was in January, 1895, that wheat made its low of 48%. Corn followed 20 months later with a low of 19½ cents in September, 1896. The question arises: After the low of 44% on wheat in October, 1931, what will be the following low on corn, and how many months will elapse before the quotation on corn makes its low? It seems impossible of belief that corn could sell at 17½ cents in June, 1933.

Holding corn for a rise is speculation, pure and unadulterated, tho it has no terrors for the corn grower, accustomed as he is to gamble on the rain and drouth and early frost. In speculation he is but an amateur. He would find it cheaper to sell his corn for cash and use part of the proceeds to buy a future in the pit, thereby avoiding the 1 cent a bushel fee charged by the county sealer of his crib, the interest on borrowed money, shrinkage, rattage and spoilage.

Publicity for Government Business Operations

Citizens are flooded with literature emanating from Washington bureaus of the government advertising what they think they are doing for the public welfare; but the Farm Board has told so little about its financial transactions that we can not find it with a microscope.

In defense of its secretiveness the Farm Board claims to be in the banking business, with a duty to protect the credit rating of its borrowers by denying the public any information as to loans. Here the Board loses sight of the essential difference between private and public banking. Every borrower from the public bank knows that such loans must come under scrutiny of the public. That is to be expected.

Publicity for Farm Board operations is desirable from every point of view. Admittedly the embarkation of the Government into the grain, cotton and several other lines of business by the Farm Board route is an experiment. However noble the conception its progress must be watched as by an explorer who ascends an unknown river that may have hidden shoals. A study of the Farm Board's operations since its creation to date may point out to Congress that the expected results are not being accomplished. A knowledge of the facts may decide Congress to change the program; and, if the Marketing Act is as complete a failure as claimed by bankers and merchants in every line of trade, to abandon the experiment by repealing the law, in the interest of the taxpayers and of the farmers, many of whom declare they have been harmed by the law.

The responsibility resting upon Congress for the management of the government's grain and cotton business is exactly that of the directors of any private corporation engaged in business. The members of Congress are the directors of the business and as such should know as much of the business

details as may be necessary to direct. Unless Congress insists upon knowing all the details of the business the taxpayer will be placed in the unenviable position of backing a blind pool.

The chairman of the Farm Board has declared that the Board alone is responsible for what it does and is not amenable to the President of the United States or to any one else. This statement may have been true when the Board had a large part of its half billion remaining, but since Congress holds the purse strings and the Board has contrived to pay out nearly every dollar granted to it, it must perforce, cease operations eventually unless Congress can be persuaded to keep it alive.

Liability for Delay in Unloading Cargo

Jas. Richardson & Sons, Winnipeg, Man., shipped 50,000 bus. of wheat on the steamer Henry Steinbrenner, in care of Chas. Kennedy & Co., Buffalo, N. Y. In transit the grain became the property of the Oceanic Grain Co.

The boat arrived at Buffalo on the morning of May 10, a Friday. None of the cargo was discharged until Monday, May 13, when all but the 50,000 bus. loaded for Richardson & Sons was taken out at the Connecting Terminal Elevator, controlled by the Atlas Grain Elevating Corporation. The Atlas wired the Oceanic May 13 that it had room for and could elevate the 50,000 bus. In response to this telegram the Oceanic Company wired to Kennedy that it would appreciate its turning over the 50,000 bus. of the Steinbrenner shipment to the Atlas Company. Kennedy did not reply to this telegram from the Oceanic Company, the owners of the wheat, and declined to turn it over to the Atlas Company when requested by its agent, Sprissler. The testimony is that the employees of the Connecting Terminal Elevator were kept on hand until late in the afternoon of the 13th in order that they might complete the elevating of the 50,000 bus. if Kennedy would agree to turn it over. If Kennedy had given his consent, the unloading of all the grain from the Steinbrenner, including the 50,000 bus., would have been completed by 7 p. m. of May 13. Kennedy did not give his consent, and the Steinbrenner was moved to the Dellwood Elevator controlled by Kennedy, on the following day, May 14th, and at 3:50 p. m., on that day the unloading of the 50,000 bus. into the Dellwood Elevator began, and was finished at 8:30 p. m., on that evening. The Steinbrenner was then completely unloaded.

The vessel-owner, the Kinsman Transit Co. brot suit for demurrage and was given judgment July 21, 1931, by the U. S. District Court, which said:

I have examined the cases cited by respondent and do not find authority for the proposition that a care party, as he is known in the Port of Buffalo, has the kind of control over the shipment consigned to him that would give him the right to hold up the discharge of cargo when facilities for its discharge are offered to him and he is requested by the owner to accept them.

I find that the care party in this case did have facilities offered to him for the discharge of the cargo for the day before he discharged it; that the owner of the cargo requested him to turn it over and make use of the facilities offered; and that his failure to do so was negligence.

A decree may be entered in favor of libellant for \$375, the stipulated damages with interest and costs.—51 Fed. (2d) 375.

Court Upholds Statute Giving Preference to Drafts

J. O. Jones purchased a draft for \$700 of the Farmers State Bank of Grand River, Ia., drawn on the Central National Bank & Trust Co., Des Moines, Ia. Thereafter the Farmers Bank went into the hands of a receiver. Jones filed a claim for preference with the receiver, who denied it.

After the trial court had ruled in favor of Jones, the receiver, who was L. A. Andrew, superintendent of banking, took an appeal; but the Supreme Court of Iowa on Oct. 20, 1931, affirmed the decision, holding that the following statute was intended to prefer drafts that were paid for with money:

(Section 11, chap. 30, Acts of the 43d Gen. Assem.), "Any draft, or cashiers' check issued and drawn against actual existing values by any bank or trust company prior to its failure or closing and given in payment of clearings and any money paid in the usual course of business to any bank, or trust company for the purchase of a draft for the bona fide transfer of funds shall be a preferred claim against the assets of the bank or trust company."

It may be pointed out at this time that section 11 of chapter 30, aforesaid, was amended by the 44th Gen. Assem., chapter 202, by striking from lines 2 and 3 of said section 11 the words "or cashiers' check issued and drawn against actual existing values" and inserting in lieu thereof the words "drawn and issued." The amended section is found in section 9239-c1, Code of 1931. Chapter 202, Acts of the 44th Gen. Assem., was approved April 3, 1931, and became effective after publication thereof on April 9, 1931.—238 N. W. Rep. 425.

Bank Liable for Delivering B/L Without Collecting Draft

Aker Bros., Columbia City, Ind., drew on the Quierola Fruit Co., Cincinnati, for \$500 and attached B/L, sent to the Union Trust Co., Chicago, for collection. The trust company forwarded the draft and B/L to the Fourth & Central Trust Co., Cincinnati, for collection, but the Cincinnati bank turned over the B/L to the notify party without collecting, and the B. & O. R. R. delivered the shipment to Quierola Fruit Co.

Aker Bros. brot suit against the Fourth & Central Trust Co. and Quierola Fruit Co. and were given judgment against the trust company, and not against Quierola Fruit Co. The Court of Appeals of Hamilton County, Ohio, deciding the suit on appeal Mar. 30, 1931, said:

The defendant trust company, in violation of its instructions, delivered the B/L, the indicia of title, to Quierola Brothers Fruit Co., thereby permitting the car of onions to be taken out of the plaintiff's possession, resulting in a complete loss of their property. This was a conversion of the onions on the part of the defendant trust company, and it is liable in tort for the market value of the property.

In line with this pronouncement of law is the syllabus in the case of Taylor & Bournique Co. v. National Bank, supra, which is:

"A bank taking negotiable paper in one state for collection in another state is liable to the owner for loss growing out of neglect of duty occurring in the collection, whether from default of its own officers or employees or of its correspondents or agents in such other state, without regard to the law either of the state of the residence of the owner or of the collecting bank.

"In case of loss because of negligence on the part of a bank to which paper was forwarded for collection, the right of action by the owner is against the bank with which he made his contract for collection, and not against the bank or banks to which the paper was forwarded."—177 N. E. Rep. 602.

Asked—Answered

[Readers who fail to find trade information desired should send query for free publication here. The experience of your brother dealers is worth consulting. Replies to queries are solicited.]

Crate Fattener Used for Yard Fattening?

Grain & Feed Journals: We have some trade who do not have their stock closely confined and would like to know if a crate fattening ration for poultry can be used for yard stock.—C. D. Calverley & Co., East St. Louis, Ill.

Ans.: A crate fattening ration may be used for yard stock, but it must be kept in mind that the more exercise allowed the birds, the longer it will take them to fatten. When chickens are permitted to run around they use up much of the energy in the fattening ration, and increase the cost of fattening.

Shrinkage of Corn?

Grain & Feed Journals: What is the shrinkage of natural ear corn from month to month, as per some test that has been made?—Stock Bros., Modoc, Ind.

Ans.: Each year for the nine years 1903-13, except 1904 and 1908, the Illinois Experiment Station hauled 300 bus. of corn from the field direct to a crib having tight roof and slat sides. Four times each month the crib and its contents were weighed to determine the shrinkage. The average of the four weighings was taken as the monthly average. The average shrinkage by months during the nine years and cumulative shrinkage was as follows:

Month—	Monthly Average	*Averages for 9 years, %
November	1.33	1.33
December	1.93	3.26
January .....	.90	4.16
February	1.32	5.48
March	1.47	6.95
April	3.04	9.99
May	3.11	13.10
June	2.19	15.29
July .....	.86	16.15
August .....	.46	16.61
September	(-.22)	16.39
October .....	.15	16.54
November	(-.24)	16.30

*Sum of averages of cumulative shrinkage for 13 consecutive months.

Stamp on Check as Protection Against Liens?

Grain & Feed Journals: We wish to use the following rubber stamp on the back of our checks to safeguard us:

I hereby represent to the maker of this check that I am the sole owner of the grain or product in payment for which this check is issued, and that there is no mortgage, landlord's or other lien upon such grain or product.

Payee must sign here.

Is it legal and all right and does it protect us?—E. W. Davis, Davis Bros. & Potter, Peoria, Ill.

Ans.: The landlord's lien law of Illinois does not specify what constitutes notice to the grain buyer that the grain is covered by landlord's lien. Anything that puts the buyer on inquiry is held to be adequate notice. If the buyer knows of any fact that might lead him to suspect the grain is covered by lien that is sufficient to charge him with notice. In this indefinite state of the law the rubber stamp on the back of the check should be valuable as proof that the buyer did not know the grain was covered by lien.

The rubber stamp would be no protection if the landlord had served notice on the buyer that he had a lien on the grain delivered by the payee.

If there was a lien of thresher, mortgagee or landlord on the grain the payee signing would be guilty of obtaining money by fraud and false pretenses, for which he could be prosecuted under the criminal law.

Unsoundness in Wheat

By Dr. D. A. COLEMAN, Research Laboratory, Grain Division, U. S. D. A.

The spoilage of wheat is the direct result of harvesting and storing of wheat with an excess of moisture. It makes but little difference whether the wheat is cut and stacked in a wet condition, or whether the wheat is threshed and stored with excess moisture, the ultimate results are the same. Stimulated by the high moisture content in the grain, rapid respiration or fermentation takes place, heat develops, with the result that the grain spoils, the extent of the spoilage depending upon how long the wheat has been exposed to the fermentation process and how much heat of fermentation has developed.

If the moisture conditions at the time of storage are moderately moist (15%) and the heat relationships are such (75-85° F.) that fermentation proceeds slowly, the wheat will first acquire a wet or dank odor. Wheat of this type has of late been called sick wheat. If, under these same conditions, the mass of grain is allowed to stand for a longer time so that a considerable part of the oxygen in the air surrounding the wheat kernels is used up and a partial anaerobic condition prevails a group of soil micro-organisms known as the Actinomyces will develop in the bran coat of the wheat kernels and as these organisms grow they will elaborate by-products of a characteristically earthy or musty odor, with the result that we have our musty or earthy wheat. These odors vary in intensity and in kind due to the fact that there are many different varieties of these organisms, each and all of whom elaborate by-products characteristically different in odor. On the other hand, if the initial moisture content of the wheat is higher, 16-17 per cent, the temperature remaining low, 75-80° F., mustiness or earthiness will immediately develop, masking all other odors. At higher moisture contents yeasty odors develop and mask everything else.

Increasing the temperature by ten degrees with the moisture at the same levels mentioned before of course doubles the velocity of the fermentation process with the result that the various odors develop much earlier and at a much lower moisture content, i. e., about one per cent less. Under these conditions at the higher moisture contents the wheat discolors and the so-called heat-damaged wheat makes its appearance.

If the temperature is well over 100, between 100 and 115° F., and such temperatures are not uncommon at harvest time, the development of musty, earthy or moldy odors does not take place. In their place sharp acid odors appear, increasing in intensity as the moisture content increases. Under such conditions discoloration of the kernel proceeds rapidly and the so-called "skin-burned," "sun-kissed," and "mahogany" kernels soon make their appearance.

Strong and weedy odors, as well as certain types of earthy odors develop (1) when moist wheat is stacked with an excess of moisture, and (2) when stacked with a large percentage of green and damp weeds, or (3) when left in the field for some time exposed to frequent adverse weather conditions before threshing.

New President Omaha Exchange

The directors of the Omaha Grain Exchange have chosen J. A. Linderholm to head its administration for the ensuing year.

Mr. Linderholm is not new to the office, having been president in 1917-18, and he was in the grain business long before the Omaha Grain Exchange was started.

Thirty-five years ago he engaged in the grain business as manager of a country elevator for the Crowell Elevator Co. and earned promotion by an ability concealed behind a quiet, unassuming manner. He is still connected with the same company.

Mr. Linderholm enjoys his surroundings and his associates in the Crowell Elevator Co. and still finds time to play an occasional game of golf. He has always enjoyed Grain Exchange work and is highly esteemed by his fellow members.

On the important question of the day, government in business, he feels that farmers have a right to go into any business they like, but is opposed to organizations getting the farmer into business for their own selfish ends.

Russian wheat shipments are officially reported to have been 110,909,000 bus. during the year ending June 30, compared with practically nothing for several years prior. Before the war Russian wheat shipments averaged 160,000,000 bus. a year for five years.

The Swiss Federal Council has fixed the price to be paid by the Government for the 1931 domestic wheat crop at 38 francs per metric quintal (about \$2.00 per bushel), rye at 28 francs per quintal (\$1.40 per bushel), mixed rye and wheat 33 francs, and spelt 28 francs.

The Russian Soviet Grain Storage Construction Trust has begun the construction at Mariupol in the Ukraine, of an elevator of 50,000 tons capacity similar to that just completed at Kherson on the Black Sea. It is planned to begin the construction of another next spring at Odessa.

There may be "peanut brains" in Congress as alleged by Chairman Stone of the Federal Farm Board, but the personnel of Congress has changed little in recent years, so that the "peanut brains" must have been there when the Agricultural Marketing Act was passed. It is rather ungrateful of the Farm Board chairman to find fault with the "peanut brains" that created his own fat-salaried office.



J. A. Linderholm, Omaha, Neb.
Pres. Grain Exchange

Government in Business Will Culminate in Communism

Address by R. I. MANSFIELD before Ohio Grain & Feed Dealers Ass'n at Columbus, O.

That this Government of ours is definitely in business in a big way is attested to by scores of leading economists, business leaders and commercial experts in every line. No popular vote was ever taken to permit Uncle Sam departing from the Constitutional form of Government handed down to us by the Fathers and this invading of the field of private enterprise and general business has been done insidiously. Edging in here, crowding in there, a step further in this line and one in that, until 160 business lines were thus invaded.

A Paralyzing Influence.—This Government invasion and interference with private business has had a paralyzing influence on all lines of trade and commerce. Included are several basic industries that were so throttled that their paralysis spread to kindred lines until today business and industry have paused, at a virtual standstill, and all are asking "What is next?"

Money hides itself, refusing to back legitimate private enterprise. Trade is thus stopped, unemployment increases and lack of confidence stalks grimly in the background.

Something is fundamentally wrong and be the causes many or few there is a burden of proof that the Government's entry into basic industries is a major cause in the present situation. This is particularly true of Agriculture, and its allied lines.

The Agricultural Marketing Act was the first big Government step into basic private business, and it created chaos in Agriculture at home and abroad which still continues. This in turn reacted back on other lines of business in our country, banks, general merchants and smaller business throughout the rural communities, finally striking back to large centers of population. Farm prices steadily fell until they reached levels never before recorded in the annals of grain handling.

This bill created a Farm Board with 500 million dollars at its command and with unlimited power. It also created a Stabilization Corporation and alongside of these, a co-operative marketing agency designated as farmer owned and farmer controlled but in reality not co-operative and dominated by three individuals, so that this co-operative is now clearly recognized as nominally co-operative but actually bureaucratic and monopolistic in structure with ample funds supplied by Government agencies at interest rates less than 2%, constituting taxpayers' money put into business channels with the openly avowed purpose of destroying the present established marketing machinery and replacing it with a monopoly. In plain English, this means that part of your taxes and mine are being used to cut our own throats and we are supposed to submit gladly and like it.

The Stabilization Corporation's purchase of almost 300 million bushels of wheat in an attempt to maintain domestic values failed totally of accomplishment and caused the loss of our foreign customers not only in wheat, but in cotton as well.

Sidney Gambrell, most eminent British Economist, said in a lecture: "The Farm Board was not interested in economies in handling. Its aim was control, while the entire wheat purchases of the Farm Board are almost a total financial loss the indirect loss to the American Farmer and to the world was even greater. The repercussion in Europe of this policy and the ill advised language used by its supporters, have been terribly expensive for the U. S. wheat grower."

Sir Herbert Robson, world's leading Food economist authority who presided at Gambrell's lecture, said: "The United States has created immense hoards of wheat and gold, hoards so large that they partake of the nature of a corner. The hoarded wheat has tended to depress the values of all Agricultural produce throughout the world, thus impoverishing farmers."

It is a far cry back to the same constitutional Government of our forefathers.

March 4, 1801, Thomas Jefferson rode into Washington, tied his horse to a hitching post, (still preserved in Washington) and walked into the Senate Chamber, took the oath as President of the United States and delivered his first inaugural address. In that brief message he outlined the essentials necessary to make us a happy and prosperous

people, and wound up with this significant statement:

"Still one more thing fellow citizens, a wise and frugal Government which shall restrain men from injuring one another, shall leave them free to regulate their own pursuits of industry, and improvement, and shall not take from the mouth of labor the bread it has earned. This is the sum of Good Government."

Today 79 Bureaus, Commissions and such like institutions regulate, restrict and restrain men in their own pursuit of industry and improvement, and are maintained by the Federal Government in that same Washington where Jefferson spoke those words 130 years ago. It is claimed that 17 such bureaus and commissions have come into existence during the present administration, so this is not "old stuff." Constitutional Government as set forth in our Declaration states that all men are created equal with the inalienable rights of life, liberty and the holding of individual property. The basis of Constitutional Government is that no citizen shall be deprived of his opportunity, his freedom or his property by any discriminatory Government action.

Any action, direct or indirect, which puts Government into competition with citizens in business, destroys men's equality, taxes one group for the benefit of another, and robs private industry of initiative, leadership and progressive enterprise. Business carried on by Government enterprise pays no taxes, and this added burden rests and is levied upon private business as can survive. This accounts for your taxes increasing 325% in 16 years, and for 500,000 payrollers on the Government bureaus, boards and commissions.

Taxation to-day is not merely a fact, it is a horrible tragedy to countless thousands, nay even millions. If you pierce the cloud and fog surrounding this tax question, you will find the cause clearly and unquestionably, the excessive cost of Government greatly aggravated by inefficiency, waste and extravagance. The major part of these arising from new ventures including Government in Business, with staggering costs and losses in operation as well as the original Government investment. These are directly responsible for crushing taxation that has settled like a plague over the nation.

This is not figurative language, it can be clearly set forth in cold hard figures, and in dollars and cents.

In 1913 all Federal State and local taxes in the United States were 2,219 million dollars. In 1928 these same were 12,609 million dollars. An increase in 15 years of 330%. In that same period the population increased only 24% while the cost of Government increased 15 times as fast as population. To apply this to your home and mine, in 1913 the cost of Government per family was \$150.50. In 1928 the cost of Government per family was \$525.35. In this 15 years average income increased 92% and the demands of Government increased 240%.

With an army of 4 million Government employees this means 20 million individuals draw their support and secure their living from the Government. Of every six men in this room today, there is a seventh man invisible which you are holding on your back, like the proverbial old man of the sea but just as real as if visible.

There is little need of going into detail on the Government's activity in the grain and cotton trade. Sufficient it is to say that the Farm Board is a discredited failure and at the end of its career. Its Stabilization Corporation is suffering from over extension of financial interest and is awaiting an inevitable disclosure of all its dealings and the cost to the taxpayers of the nation. Its so-called co-operative child is still alive and kicking but its foster brothers and sisters, and its cousins, are sensing what a real little devil it is and some of its nurse maids are not in very good repute.

No grain man fears honest co-operative marketing on a fair equal basis with his own business. True co-operative marketing will stand or fall on its own record of efficiency and economy. Monopolistic, conscienceless co-operative marketing such as that menacing the trade can only terminate in the same manner and with the same causes working as killed the widely heralded Canadian Wheat Pool. It may take time, it

may require a firm stand for our Constitutional rights, but the handwriting is on the wall as it was in biblical days and we read it clearly: "Mene-Mene-Tekel-Upharsin," which translated as of old means "Thou art weighed in the balance and found wanting."

Disowned by the farmers, discredited by the record of some of its guiding stars, its sole purpose revealed as a direct attempt to monopolize the grain world, this clearly indicated in carefully worded statements by Mr. Legge, Mr. Stone, Mr. McKelvie, and others, we leave it to its own inevitable conclusion.

The picture reveals Government invasion of grain cotton, livestock, vegetables, fruit, poultry, all of these basic agricultural lines. Then we find them oppressing railroads, utilities, banking, insurance, contracting, printing, warehousing, and hosts of kindred lines.

Goliath of Business Waking.—National leaders, economists and great trade associations are sensing the danger to the nation and the individual. Sentiment is growing by leaps and bounds, and expressing itself in many directions. It will break out like the measles throughout the length and breadth of this country as aroused citizens discover the cause like Gulliver of old, Business, that mighty Giant has awakened from its slumbers and found itself bound by fine Government threads but nevertheless holding its captive and surrounded by hostile forces attempting to prevent the Giant breaking these bonds and freeing himself for action.

Strong trade associations with perfect organization and ample funds have found the futility of trying to stop this tide of Government invasion, sweeping down on them like the proverbial glacier of the Northland.

The Federation of American Business.—Last spring a group of business men representing some twenty odd lines of trade met in Chicago to discuss the disease and to seek the remedy. This group after careful study and contact with most lines of trade determined that only an organization of ALL business in a militant, aggressive body, national in scope and individual in membership, would be able to cope with the disease. This organization known as the Federation of American Business is now working in your behalf and mine, and is growing rapidly and extending its influence daily. Its purpose is non-partisan but it intends to carry the question of constitutional rights and Government to all the people. To acquaint them with the true situation and to ask their support in this work.

The Federation intends to place this question before the Senators and Representatives, and not only represent what business must have to exist but require them to express their voting attitude on getting the Government out of business and keeping it out in the future.

This isn't merely a difference of opinion, it's a battle that is raging the world around. A battle between individualism and socialism. Between constitutional government and communism. These Government aggressions aren't merely accidents, they are part and parcel of a definite plan being worked out by master minds not seen, but ever present. These are aiming to deliver our America bit by bit, one Government invasion following

[Concluded on page 583]



R. I. Mansfield, Chicago, Ill.

Letters from the Trade

[The grain dealers' forum for the discussion of grain trade problems, practices and needed reforms or improvements. When you have anything to say of interest to members of the grain trade, send it to the Journal for publication.]

Has Devised Easy Feed Case for Shell and Grit

Grain & Feed Journals: The article "Grit and Oyster Shell" which appeared in your November 11 number, struck me with particular force as the feeding, or rather the neglect to feed, these mineral supplements has been most interesting to me.

In my work with poultry I have found evidence of my own that concurs with all authorities, that it is essential that Oyster Shell, Grit and Charcoal be fed if maximum results are to be obtained. Altho this fact has been advertised the majority of flock owners, large and small, feed these items inefficiently. To make it easy for the poultryman to supply the birds with shell, grit and charcoal continuously and economically, I have devised a heavy paper board case in which we pack 25 lbs. of this mixture, that is easily converted into a most satisfactory dispenser. It is automatic, clean, not wasteful and costs but little more than the ordinary bag of the material. They appeal to the trade on account of the desirability of the mixture and the container's efficiency.—Haney Cochran, Vice-pres., H. K. Cochran Co., Little Rock, Ark.

Exchanges' Traffic Departments Valuable to Shippers

Grain & Feed Journals: We are gratified at the appreciation expressed in the JOURNAL of the work of the exchanges to safeguard the interests of outside traders.

The traffic departments of the exchanges are continually in controversy with the carriers or governmental regulatory bodies and what we advocate and accomplish redounds to the benefit of the shipper and receiver.

We, therefore, are looking after the welfare of our clients on the shipping and receiving ends; for interior handlers and millers of grain to whom we desire to sell; and how much support do we get in this particular territory? There is no American industry in which the transportation charge enters more vitally than in the grain industry; yet, so far as the producer and country elevator man is concerned, no industry is more passive or more reliant on others.

Markets are naturally interested in a parity of relationships rather than in the actual level of the rate—except where of course one section of the country may ship into ours on rates preferential of them and prejudicial to our local producers, as has resulted to an extent from the Hoch Smith decision in 17000-7 Aug. 1.

Who is looking out intelligently after traffic matters for the producer or country elevator handler? What state grain dealers' organization maintains a traffic department? Aside from the general work of Henry Goemann, what does the National Ass'n do for its members? And did not the Millers National Federation abandon its traffic department long since? And what does the traffic department of the Federation of Farm Bureaus do for its outfit? The Indiana and Ohio co-operatives do maintain traffic managers, but how active are they in real matters?

No money is spent except by the grain exchanges and we have to keep ourselves lined up competitively with sister markets, so others simply sit back and profit by our labor and expense.

Now I note that Representative Jones of Texas proposes a bill to provide in effect a rate-adjusting body to aid the Farm Board. That, too, will be another joke.

The producer, country dealer, interior miller and buyers in our distribution area are all benefited by the labor of traffic men employed by exchanges. That is one of the expensive services rendered for which we have received no credit.

I understand the Farmers National Grain Corp. maintains a traffic department, but I have yet to see an evidence of it by an appearance in a hearing before the carriers or the Commission. There is, of course, no real necessity for their being careful as to transportation charges.—L. E. Banta, traffic manager, Indianapolis Board of Trade, Indianapolis, Ind.

Deny Pool Receivership

Editor, Grain & Feed Journals Consolidated: Our attention has been called to an article appearing on Page 386 of the Oct. 14 issue of Grain & Feed Journals, under the heading "Another Pool in Receivership," and signed by I. M. Tuggle, Walsh, Colo.

We find it difficult to understand how a reputable publication can justify the printing of statements that are so far from the facts, unless, indeed, they are published without any regard whatever for their accuracy.

The letter states that "harvest being started, the elevator began at once receiving wheat, offering free storage to members." As a matter of fact neither Farmers National Grain Corporation nor Farmers National Warehouse Corporation has ever offered free storage to any of the producers in the Walsh area.

The letter further states that the "entire office force (presumably at the elevator) was removed on the claim that they were not receiving the grain fast enough." The facts are that only Mr. Tuggle, then manager, and an assistant were removed, and this action was taken only after repeated complaints on the parts of grain producers in the territory. On the possibility that Mr. Tuggle might find himself more satisfactorily situated at another location a transfer was offered him. He preferred, however, to accept employment with another firm and when he was released on July 11 he received a check for salary to August 1.

There is no basis for any intimation that either Farmers National Warehouse Corporation or any of its properties is in receivership at Walsh, or anywhere else. One individual wheat grower in the vicinity of Walsh is involved in bankruptcy litigation over a quantity of wheat he previously had delivered, and this wheat is being held pending an order from the court. No advance has been made against it except the costs incidental to harvesting, threshing and delivering and these advances have been authorized by the proper authorities in writing.

The letter states that "the first payments

on wheat were 20 cents per bu., then 16 cents and later 10 cents."

It is quite obvious that the use of these figures was intended to make it appear that Farmers National Grain Corporation was paying considerably below the market at Walsh. Even the most casual inquiry would have disclosed that these figures merely represented initial advances on wheat pooled by growers at their own option. Buying prices of Farmers National Grain Corporation at its Walsh station between June 27 and October 30, ranged from 23 cents on Aug. 1, to 35 cents and were in line with the market. These figures may readily be verified.

The further statement is made that "Mr. Gano hesitated to sell" his property at Walsh, intimating that pressure brought to bear on Mr. Gano by large membership of organized growers was such that "no grain man of experience would dare provoke" them. The truth is that no pressure whatever was brought to bear on Mr. Gano to induce him to sell his elevator at Walsh, and he has since stated in writing that there was absolutely no foundation for the article that bears Mr. Tuggle's signature.—Very truly, Farmers National Grain Corporation, W. L. Stahl, Division of Organization and Publicity, Chicago.

Farm Board a Good Scapegoat

Grain & Feed Journals: The popcorn business in which we are engaged has its low prices altho we have no dealings with the Farm Board at all.

In former years when we had low prices no one thought of blaming them on a government board, but it seems a lucky break for the grain dealers to have someone provided for them to ride. The grain dealers should be fair and give the Farm Board credit for the rising prices.—Bennett Popcorn Co., Chas. E. Kelly, Schaller, Ia.

[The Farm Board had no part in bulling the market during October. The government, on the contrary, has been a seller of 5,000,000 bus. per month for several months past and still is supposed to have nearly 200,000,000 bus. with which to hammer the market. Close observers believe that the advance in wheat prices is due to the heavy buying by consuming countries influenced by rumors of war in the Far East between Japan, China and Russia.

The government has no big stock of rye, with which to bear down on the market and consequently the price of rye has advanced from 33½¢ Aug. 9 to 57¢ Nov. 19, or 70%. Wheat advanced 20 cents from the bottom of 44½¢ on Oct. 5 to 65¼¢ Nov. 19, or 45%.

The fact that wheat went to the **lowest price on record** while the Farm Board was holding the greatest accumulation of wheat ever controlled by one interest speaks for itself.—Ed.]

Indirect Acting Thermostat Needed to Prevent Drier Fires

Grain & Feed Journals: Fewer fires would start in grain driers if all direct heat driers were equipped with indirect acting thermostats. I will endeavor to point out the differences in the types of temperature regulating apparatus used to control the temperature on direct heat driers.

Temperature regulation in all grain driers is pneumatic in its operation and this type of apparatus is also used for controlling temperature in many other industrial processes as well as regulating the temperature in theaters, office buildings, hotels, etc.

Temperature control apparatus actuated by compressed air is made in two distinct types, both operating under exactly the same principle. For want of a better name, one is known as the "direct acting"; the other the "indirect acting," and with the exception of the temperature regulator itself the apparatus is identical altho the position of certain parts are reversed.

Compressed air temperature regulating apparatus consists of a regulator which you would probably term a thermostat, a diaphragm motor which is a metal bellows or diaphragm connected to a lever arm so that as the bellows expands and contracts the arm moves backward and forward, tubing connecting the temperature regulator with the diaphragm motor, a source of compressed air at approximately uniform pressure and a little instrument known as a restrictor, which is nothing more or less than a tube open at both ends but with a very small opening in the middle so as to allow only a very small amount of air to pass thru.

The temperature regulator is mounted so that the expanding element is in the air, the temperature of which it is desired to regulate and this regulator is connected by metal tubing with the diaphragm motor, the arm of which is connected with the valves on the drier furnace in such manner that as the lever moves due to the contracting and expanding of the bellows, the valves letting gases from the furnace into the drier are opened and closed. It is also connected to the draft dampers of the furnace opening them when the dampers between the furnace and drier are open so as to increase the fire when more heat is required. The tubing between the temperature regulator and the diaphragm motor is connected to the source of compressed air thru the restrictor.

The purpose of the restrictor is to limit the amount of air which passes from the source into the tube connecting the regulator and the diaphragm motor. So long as there is no leak from this tube and no air is vented by the regulator, this restrictor will maintain the same pressure in this tube as the pressure of the air on the opposite side of the restrictor. However, when the regulator vents the air in this tube (which is part of its operation) the pressure in the tube immediately drops which will allow the bellows in the motor to collapse, the opening in the restrictor being so small that while air may be passing thru it this air is not in sufficient volume to build up pressure in the tube.

The temperature regulator consists of an expanding element or rod connected to a small lever. On this lever is a small cap which comes directly above the end of the air tube which is arranged with a valve seat, which when the cap on the lever moves down over the seat, will completely and tightly close the air line. The action of the temperature regulator is to regulate the pressure in the air line connecting it with the diaphragm motor by means of venting air between the aforementioned cap and valve seat, this venting and closing of this aperture being done by the expanding and contracting of the expanding element connected to the little lever.

So far this description applies equally to both the direct and indirect temperature regulators, but here is the difference. With the direct acting temperature regulator or thermostat the pressure in the tube and on the motor is increased when a decrease in temperature is required, whereas with the indirect system the pressure on the air line and on the diaphragm motor is decreased when a decrease in temperature is required. You will see from this that with the direct acting thermostat should the leak occur in the air line or source of compressed air fail the temperature in the drier will immediately increase and not only will it increase, but the volume of fire in the furnace will increase simultaneously for the draft on the fuel is increased at the same time.

With the indirect acting thermostat, however, a leak in the air line or any failure from the source of compressed air, the valves regulating the heat to the drier will close cutting off the heat to the drier and prevent-

ing a fire. For grain drier purposes the direct acting thermostat is hazardous and the indirect acting thermostat foolproof.

All Hess Direct Heat Driers in existence today are equipped with indirect acting foolproof regulators. They cost slightly more, but the increased cost is negligible. I believe it would not only be to the advantage of the insurance companies to require indirect acting thermostats on all direct heat driers, but would be an advantage to the operators as well, for fires in grain driers hurt everybody, insurance company, grain drier operator and manufacturer.

I am a firm believer in good design and good workmanship not only in the construction of a grain drier itself but in the building and connections which house it. I believe that poor workmanship is always expensive and that good workmanship and design all the way thru is cheaper in the long run and frequently no more expensive in first cost.—Sincerely, Bryce M. Hess, Chicago.

Government in Business

[Continued from page 581]

another, until we as a nation have arrived down the communist road without having sensed it.

I know your reaction to this will be, "Oh, what bosh. He's got that Communistic Bug."

My friends, after having seen much of the inside workings of this nationwide movement, after listening to those far wiser than I, after seeing documentary evidence, I am forced to see that this is no accident but a carefully thought out plan and I'd be a blithering idiot if I didn't believe what I have stated.

They have discarded the I. W. W., the Non-Partisan League and now they are feeding you sugar-coated co-operative marketing (they call it) but its center is exactly the same as the previous pills. Some call it the new order of business, others 20th century methods, but old Mr. Law of Supply and Demand goes slowly on his way and is not diverted by any of these attempts. These same forces have destroyed Australia's prosperity, ruined Germany, well nigh ruined Great Britain and Canada, and are now working in America.

America at Parting of the Ways.—Every red-blooded citizen who loves his country, his home and his business, is vitally interested. We in America are at the parting of the ways. On one hand is the road of constitutional government, private initiative and business, free from Government oppression. It is the road of Washington, Jefferson, Hamilton, Lincoln and Coolidge. The road that in 150 years placed America first in world's commerce, prosperity and power; that gave her citizenry the highest standard of living in the world; the road that stands for Home, Church and State. Along the other road lies government control of business, home, life and all we hold sacred. Down this road has gone Lenin, Trotzky, Goldman and Hayward.

Where this road goes, liberty is not, Home is not, Religion is not, men are but serfs and know it not.

This is the true situation in America today and it behooves every one of us to join the fray, a far more momentous outcome than that of the world war, a bold attempt is being made to steal America's power bit by bit, by gradually pressing her into every kind of business, which means communism when it is accomplished.

You men of Ohio will need the Federation of American Business before long, the Federation needs you.

There are brochures available with your officers explaining the Federation, the plan and the purpose.

I invite every one of you to join this crusade

FOR GOD
FOR HOME
FOR NATIVE LAND.

METRIC SYSTEM advocates are preparing to descend upon Congress with a demand for compulsion in the use of the system; and it behooves grain shippers who do not wish to lose the investment in their present satisfactory weighing equipment to be prepared with argument and facts to counteract the propaganda of the metric visionaries.

Coming Conventions

Trade conventions are always worth while, as they afford live, progressive grain dealers a chance to meet other fellows from the field of daily strife and to be convinced that the much maligned horns are truly mythical. You can not afford to pass up these opportunities.

Dec. 1. Independent Feed Dealers of the Northwest. Organization meeting. Minneapolis, Minn.

Dec. 2-4. International Crop Improvement Ass'n, Bismarck Hotel, Chicago, Ill.

Jan. 21-22. Indiana Grain Dealers Ass'n, Indianapolis, Ind.

Dec. 8-10. Farmers Elevator Ass'n of South Dakota at Lincoln Hotel, Watertown, S. D.

Jan. 26-28. Farmers Grain Dealers Ass'n of Iowa at Warden hotel, Ft. Dodge, Ia.

Feb. 9-11. Illinois Farmers Grain Dealers Ass'n, Peoria, Ill.

Feb. 23-24. Eastern Federation of Feed Merchants, Syracuse, N. Y.

Farmers Elevator Ass'n of South Dakota will Meet

The Farmers Elevator Ass'n of South Dakota will hold its annual convention Dec. 8 to 10 at the Lincoln hotel, Watertown, S. D.

C. C. Anderson of Aberdeen will preside over the managers' session.

Among those who have been invited to address the meeting are Gov. Warren Green, E. S. Woodworth of Minneapolis, J. J. Murphy of the Railroad Commission, F. S. Betz of Chicago, Edw. Johnson, deputy chief inspector; J. T. Belk, C. W. Pugsley of the State College and A. L. Berg.

Death of Former Pres. of Hay Ass'n

Altho his firm was out of the hay business in recent years John L. Dexter will be remembered as pres. of the National Hay Ass'n in 1903-04. He passed away last month at his residence in Detroit, Mich.

A year ago he was nominated an honorary member of the Ass'n.

Mr. Dexter was best known in his home city for his philanthropic interest in the boy scout work and in the Detroit Newsboys' Band.



J. L. Dexter, Detroit, Mich., Deceased

Crop Reports

Reports on the acreage, condition and yield of grain and field seeds, as well as on the movement to country markets, are always welcome.

Springfield, Ill., Nov. 18.—Illinois has just experienced the warmest week of record for so late in the season. Corn husking was delayed by the rain but there was some progress. Husking is 85% completed in the northern division, and 70% in the central. It is not so advanced in the south. Moisture and other conditions were favorable for winter wheat and all reports indicate good to excellent progress and condition.—Clarence J. Root, meteorologist, U. S. Dept. of Ag.

Jefferson City, Mo., Nov. 11.—Missouri crops escaped frost damage this year. Corn is being cribbed averaging 28.0 bus. The acreage for 1931 is 6,131,000. Total production will be 171,668,000 bus. Grain sorghum yields are 21 bus. for grain and 2.6 tons for forage. Soybeans average 12 bus. of grain per acre, compared with 9.5 in 1930. Most of the wheat seeding in Missouri was completed by Nov. 1, except in a few southern counties. Weather was favorable during October for fall seeding of wheat, rye and barley.—E. A. Logan, U. S. Dept. of Ag., and Jewell Mayes, Mo. State Bd. of Ag.

Ottawa, Ont., Nov. 12.—Despite the most serious drouth conditions in recent years Canada harvested a total wheat crop of 298,000,000 bus. this year, showing a gain of 33,000,000 bus. over the preliminary returns and compared with 396,000,000 bus. harvested in 1930. The three provinces have 188,000,000 bus. oats, compared with 254,000,000 bus. last year and 51,000,000 bus. barley against 109,000,000 bus. in 1930. The rye crop was a near failure, 4,750,000 bus. against 20,641,000 bus. last year, while the flax crop was 2,750,000 bus., compared with 4,293,000 bus. in 1930. Reported yields of wheat in the three provinces are: Manitoba 27,000,000 bus., Saskatchewan 117,000,000 and Alberta 135,000,000.—Dominion Bureau of Statistics.

Topeka, Kan., Nov. 10.—The Kansas corn crop is estimated at 116,078,000 bus., compared with 119,394,000 bus. a month ago. The yield per acre is placed at 17.5 bus., against 12.0 bus. last year. Frost dates were unusually late and all corn matured without frost injury. Yields were highest in northeastern and east central Kansas. Husking is further advanced than usual at this date due the drying weather of September and October. Eighty-two per cent of the crop is reported as being of merchantable quality. Only 65% of last year's crop was merchantable. Grain sorghums yielded the same as indicated a month ago and production is estimated at 23,760,000 bus., compared with 14,300,000 bus. last year. The yield per acre is placed at 18.0 bus. The estimates of seed production this year and last year (revised) are alfalfa 144,500 and 185,000 bus.; red clover 9,000 and 19,200 bus.; sweet clover 48,100 and 46,800 bus.; yields per acre are about average.—F. K. Reed, U. S. Dept. of Ag., and J. C. Mohler, Kan. State Bd. of Ag.

Columbus, O., Nov. 12.—The present estimate of the corn crop is 162,564,000 bus. compared with 88,358,000 bus. in 1930 and the average of 140,330,000 bus. This year's yield of 46.0 bus. per acre has been surpassed by only one year on record, which was 48.0 bus. in 1925. The average yield per acre is 38.6 bus. Quality of the corn at 91% is far above the average quality of only 77%. Red and alsike clover seed production is placed at 193,500 bus. compared with 103,200 bus. in 1930. Quality is reported at 87% the same as last year. Timothy seed is placed at 100,800 bus., compared with 42,600 bus. last year and a quality of 92%, compared with 88% in 1930.—A. R. Tuttle, agricultural statistician, U. S. Dept. of Ag. and Ohio Ag. Exp. Sta. co-operating.

Springfield, Ill., Nov. 12.—Illinois corn yield per acre is placed at 37 bus., compared with 25.5 last year and the previous ten-year average of 35.5 bus. Mild fall weather was favorable for normal maturity. The percentage of the crop rating as of merchantable quality shows the high average of 92% against 85 last year and the ten-year average of 80%. State production 338,180,000 bus., compared with 228,506,000 in 1930 and the previous five-year average of 329,948,000 bus. Illinois soy bean yield is 16.5 bus. per acre for soy beans threshed, compared with 16 bus. State production 6,138,000 bus. against 5,504,000 for 1930.—A. J. Surratt, senior, and J. A. Ewing, ass't, agricultural statisticians, U. S. and Illinois depts. of ag. bus. in 1930 and the ten-year average of 13.2.

West Lafayette, Ind., Nov. 1.—The yield of corn is reported at 41.5 bus. per acre, about 6 bus. above the ten-year average, making the total production on the planted acreage about 12% above average. Some damage from August drouth is apparent in counties along the Illinois line between the Wabash and Kankakee rivers. Corn is of exceptional quality this year, with 90% of the crop reported merchantable compared with the ten-year average of 77. The moisture content is unusually low.—Miner M. Justin, ag. statistician, and C. D. Palmer, ass't ag. statistician, U. S. Dept., of Ag. co-operating with Purdue University Ag. Exp. Sta.

The French wheat crop is about 60,000,000 bus. below the nation's requirements it was announced Nov. 12 by the Ministry of Agriculture.

Seed Crop Reports

Washington, D. C., Nov. 11.—The U. S. Dept. of Agriculture makes the following preliminary estimates:

State	CLOVER SEED (RED AND ALSIKE)					
	Acreage		Yield per Acre		Production	
	1931 Total (Acres)		1930 (Bushels)		Harvested	
					5-yr. Aver. 1925-29	Nov., 1931 Prelim. Estimate
N. Y.	3,800	2.4	2.0	5,580	7,600	
Pa.	8,600	1.5	2.1	23,400	18,100	
Ohio	129,000	1.2	1.5	255,040	193,500	
Ind.	137,000	1.0	1.1	170,600	150,700	
Ill.	148,000	1.1	1.5	141,200	222,000	
Mich.	66,000	1.2	1.5	135,540	99,000	
Wis.	100,000	1.7	1.6	209,120	160,000	
Minn.	75,000	2.2	2.2	114,120	165,000	
Iowa	82,000	1.25	1.0	116,760	82,000	
Mo.	28,000	1.6	1.5	48,800	42,000	
Nebr.	17,000	1.8	1.6	23,840	27,200	
Kans.	6,000	1.6	1.5	17,320	9,000	
Tenn.	5,800	2.0	1.5	9,000	8,700	
Ida.	32,000	5.1	4.0	77,760	128,000	
Colo.	2,000	5.0	4.5	.....	9,000	
Oreg.	17,000	3.1	3.5	44,200	59,500	
U. S.	860,700	1.55	1.61	1,400,200	1,386,500	

State	ALFALFA SEED					
	Acreage		Yield per Acre		Production	
	1931 Total (Acres)		1930 (Bushels)		Harvested	
					5-yr. Aver. 1925-29	Nov., 1931 Prelim. Estimate
Wis.	18,000	1.6	1.5	.....	27,000	
Minn.	25,500	2.0	1.8	8,175	45,900	
N. D.	10,900	1.5	1.4	14,680	15,300	
S. D.	25,600	1.9	1.6	69,160	41,000	
Nebr.	19,800	2.8	3.0	54,080	59,400	
Okl.	13,000	4.0	3.5	32,600	45,500	
Mont.	33,000	2.6	1.4	56,060	46,200	
Ida.	28,500	5.4	4.5	90,120	128,200	
Wyo.	9,800	3.7	2.0	12,060	19,600	
Colo.	12,500	3.0	3.0	14,440	37,500	
N. M.	3,100	3.0	3.3	21,140	10,200	
Ariz.	14,000	5.0	4.0	105,400	56,000	
Utah	29,000	1.16	2.0	234,840	58,000	
Oreg.	3,000	3.0	4.0	7,475	12,000	
Calif.	19,100	4.0	4.3	47,840	82,100	
Kans.	57,800	3.2	2.5	66,600	144,500	
U. S.	324,000	2.83	2.57	848,460	831,500	

State	FLAXSEED					
	Yield per Acre		Production		Nov., 1931	
	10-Yr. Aver. 1920-29		1930 (Bushels)		Prelim. Estimate	
					(1,000 Bushels)	
Wis.	12.4	12.0	10.0	124	90	
Minn.	9.6	10.0	7.0	6,582	5,740	
Iowa	10.5	12.0	8.0	167	96	
Mo.	7.5	8.5	5.0	32	10	
N. Dak.	7.0	4.8	2.7	8,498	3,694	
S. Dak.	7.8	4.8	1.5	3,971	916	
Nebr.	8.6	6.0	3.3	76	36	
Kans.	6.6	7.3	6.0	209	378	
N. C. ....	...	10.2	...	...	0	
Mont.	6.2	3.7	1.5	1,236	324	
Wyo.	7.0	5.0	1.5	...	30	
U. S.	7.6	5.8	3.6	20,917	11,314	

SWEET CLOVER SEED

State	Acreage		Yield per Acre		Production	
	1931 Total (Acres)		1930 (Bushels)		Nov., 1931	
					Prelim. Estimate	
					(Bushels)	
Ohio	4,000	4.0	3.0	12,800	12,000	
Ind.	2,000	3.0	3.0	6,000	6,000	
Ill.	13,000	3.8	3.5	53,200	45,500	
Minn.	37,000	5.0	4.7	145,000	173,900	
Iowa	11,000	3.9	4.0	39,000	44,000	
Mo.	3,100	4.0	4.0	11,200	12,400	
N. D.	48,000	3.8	3.0	129,200	144,000	
S. D.	34,000	3.7	2.4	159,100	81,600	
Nebr.	14,000	4.2	4.4	58,800	61,600	
Kans.	13,000	3.9	3.7	46,800	48,100	
Mont.	2,200	3.5	3.5	15,400	7,700	
Colo.	3,500	5.0	5.0	17,500	17,500	
U. S.	184,800	4.04	3.54	694,000	654,300	

TIMOTHY SEED

State	Acreage		Yield per Acre		Production	
	1931 Total (Acres)		1930 (Bushels)		Nov., 1931	
					Prelim. Estimate	
					(Bushels)	
N. Y.	1,000	3.8	4.2	3,800	4,200	
Pa.	1,800	4.5	5.0	8,100	9,000	
Ohio	22,400	3.8	4.5	42,600	100,800	
Ind.	10,500	2.5	4.0	8,800	42,000	
Ill.	45,000	3.6	4.0	162,000	180,000	
Wis.	10,000	4.7	4.3	41,400	43,000	
Minn.	44,900	5.0	4.0	220,000	179,600	
Iowa	196,100	5.0	4.0	1,032,000	784,400	
Mo.	85,000	3.0	4.0	196,200	340,000	
N. D.	2,500	3.0	2.0	7,500	5,000	
S. D.	2,900	3.4	3.0	15,000	8,700	
Kans.	1,000	3.0	3.6	3,900	3,600	
U. S.	423,100	4.41	4.02	1,741,300	1,700,300	

Foreign Crops

Germany's wheat crop is reported to exceed last year's by 440,000 tons, aggregating 4,233,000 tons.

Argentina's wheat acreage is 17,294,000, or 18.7% less than last year, according to the third official estimate.

The flaxseed acreage in Argentina is the greatest on record, and is expected to produce 2,000,000 to 2,500,000 tons.

Fall sowings of grain in Russia Nov. 1 had reached 89,658,000 acres, or 84 per cent of the plan, according to cable to the U. S. Dept. of Agriculture. This was an advance of 2 per cent of the plan over the total for Oct. 25, and the Oct. 25 acreage was 87 per cent of the total winter acreage sown last year.

The Buckwheat Crop of Canada

Ottawa, Ont., Nov. 18.—The Dominion Bureau of Statistics estimates the buckwheat crop as follows:

State	Acreage		Yield per Acre		Production	
	1931 Total (Acres)		1930 (Bushels)		Nov., 1931	
					Prelim. Estimate	
					(1,000 Bushels)	
Ontario	178,093	20.6	21.9	5,676,000	3,900,000	
Quebec	86,318	23.2	22.2	3,635,000	1,916,000	
New Brunswick	41,637	28.2	20.0	1,293,000	833,000	
Nova Scotia	7,400	24.0	21.4	182,300	158,000	
P. E. Isl.	2,400	27.0	28.3	73,000	68,000	
Manitoba	2,800	15.1	15.8	44,000	44,000	
Canada	318,648	22.2	21.7	10,903,300	6,919,000	

Government Report on Buckwheat

Washington, D. C., Nov. 11.—The crop reporting board of the U. S. Dept. of Agriculture reports the yield and production of buckwheat as follows:

State	—Yield per Acre—			—Production—	
	10-Yr.			Aver.	Nov., 1931
	1920-29	1930	1931	1925-29	Prelim. Estimate
	(Bushels)			(1,000 Bushels)	
Me.	25.1	23.0	23.0	333	230
Vt.	22.7	20.0	20.0	57	40
N. Y.	19.6	16.5	20.3	3,799	3,552
N. J.	19.9	18.0	21.0	32	21
Pa.	20.4	12.5	22.5	4,038	3,938
Ohio	19.8	16.0	20.0	564	360
Ind.	16.1	13.5	14.1	256	197
Ill.	15.1	12.0	12.5	75	62
Mich.	13.9	6.5	9.5	658	228
Wis.	15.1	13.5	12.5	381	275
Minn.	14.0	9.5	10.0	1,125	450
Iowa	15.1	13.0	9.5	111	38
Mo.	14.6	15.0	15.0	15	30
N. Dak.	11.7	4.0	5.5	108	66
S. Dak.	13.4	7.0	2.0	193	26
Nebr.	14.2	8.0	7.5	12	8
Del.	17.1	10.0	20.0	37	40
Md.	20.3	13.0	23.0	153	161
Va.	19.6	12.8	21.5	301	280
W. Va.	19.8	13.0	22.0	743	440
N. C.	19.2	15.0	20.0	194	200
Ky.	16.4	12.5	16.0	172	160
Tenn.	17.0	16.0	15.0	50	45
U. S. ...	18.5	13.5	18.4	13.409	10.847

Buckwheat Crop Reports

Ravenna, O., Nov. 18.—Buckwheat yield 25 bus. per acre; 60% of last year's acreage; fine in quality.—Mayhew Elvtr. Co.

Burdett, N. Y., Nov. 21.—Buckwheat acreage 40% short of 1930 yield, from 12 to 15 bus. per acre. Quality good.—Kreider & Bement.

Marion Center, Pa., Nov. 17.—Average buckwheat yield 22 bu. per acre; 80% more than 1930 crop.—Marion Center Milling Co., per H. E. Bence, mgr.

Bloomsburg, Pa., Nov. 18.—Buckwheat acreage below average; yield above average, about 25 bus. per acre; quality exceptionally good.—The White Milling Co.

East Randolph, N. Y., Nov. 20.—Buckwheat crop here about normal. Perhaps quality little better than usual due to ideal weather for maturing and harvesting.—C. & L. Glover.

Mount Pleasant, Mich., Nov. 18.—Practically no buckwheat here for the last two years; not over 15% of an average crop. Predict much larger acreage next season.—Harris Milling Co.

Portage, Wis., Nov. 17.—Our buckwheat crop is practically a failure. Weather was too hot and dry. There will be no buckwheat shipped out. Home consumption will want it.—T. H. Cochrane Co.

Conneaut, O., Nov. 20.—The buckwheat crop thru this section is smaller than usual as we had hard rains about the time of planting. The acreage is about normal.—Conneaut Grain & Feed Co.

Marshfield, Wis., Nov. 11.—No buckwheat raised in this vicinity this year account land was too dry for seeding. However, the past 60 days gave us wonderful rains and warm weather with good pastures still prevailing.—C. J. Sparr.

Yatesboro, Pa., Nov. 20.—The buckwheat crop in this county is above the average of other years both in acreage and yield; quality extra fine; average price being paid 75c per cwt. delivered at mill door; demand slow.—Yatesboro Flour & Feed Mills, W. P. Lauster, prop.

Chilhowie, Va., Nov. 18.—Ours is not an important buckwheat section. There is less being grown each year. We estimate this year's crop to be 50% of our 5-year average, and about the same as the 1930 crop, which was short on account of drouth. We estimate that 80% of our crop has gone to market.—The Vance Co., Inc., Q. A. Eller, mgr.

Elkins, W. Va., Nov. 18.—There never was so much buckwheat raised as this year, and the quality was never so good. The weather was all that could be wished during the harvesting season and has been fine for threshing. The sale for the flour has been rather slow as the price makes it slightly out of line with the cheaper grades of wheat flour to which it must bear some reasonable relation to get any real volume of business.—The Darden Co.

Berlin, Wis., Nov. 17.—The yield of buckwheat grain locally is much less than the average because of the very dry weather that prevented sprouting of the seed after it was put in the ground. We find that when the crop in the immediate vicinity is short we can draw from a greater distance because nearly every farmer has a truck and does not mind a little extra mileage if he has a sure market for his grain. Prices for grain have advanced some but we had bot enough early to supply the demand for the smaller quantity of flour that is now consumed.—Stillman, Wright & Co.

Cuba, N. Y., Nov. 20.—We have taken in direct from the grower this year more than a normal crop of buckwheat; in fact, for a couple of weeks we had to quit buying in order to make storage room. Of course we realize that on account of the good roads and trucks, this grain is brought in from a longer distance each year. Yield according to most reports was low and would estimate that average would be somewhere near 18 to 20 bus. per acre. Quality is very fine, heavy weight, low moisture grain. We believe more buckwheat will be held or ground for dairy feeds than normal this year, due to low prices offered to growers.—Phelps & Sibley Co.

Grain Movement

Reports on the movement of grain from farm to country elevator and movement from interior points are always welcome.

Greybull, Wyo., Nov. 17.—We have had a good great northern bean business.—Greybull Elvtr. Co., Paul B. Hughes, sec'y-treas.

Columbus, O., Nov. 12.—It is estimated that only 2.2% of the 1930 corn crop was on farms Nov. 1.—A. R. Tuttle, agricultural statistician.

Hutchinson, Kan.—Receipts of grain for October were: Wheat 3,493 cars, barley 9, kair and milo 33, against wheat 1,399 cars, corn 2, barley 25, kafir and milo 17 in October, 1930.—E. E. Hogle, sec'y Board of Trade.

Baltimore, Md., Nov. 21.—The first boat load of new corn of the season to arrive in the Baltimore market came to hand on Nov. 14 from the eastern shore of Maryland, consigned to C. P. Blackburn & Co., Inc., grain receivers and shippers. The corn graded No. 4 white and sold at 45 cents per bu.—R. C. N.

Lafayette, Ind., Nov. 1.—The stocks of old corn now on farms in Indiana is 4.2% of last year's crop, or 4,875,000 bus. This is nearly 1,000,000 bus. more than a year ago.—Miner M. Justin, ag. statistician, and C. D. Palmer, ass't ag. statistician, U. S. Dept. of Ag. co-operating with Purdue University Ag. Exp. Sta.

Topeka, Kan., Nov. 10.—Farm stocks of old corn are small, the carryover from the 1930 crop being estimated at 2,487,000 bus., which is 3.0% of the crop produced in that year. This is the smallest quantity of corn carried over into the new crop year since the short corn crop of 1926. Stocks of old corn on farms last November totaled about 3,204,000 bus. or 3.0% of the 1929 crop.—F. K. Reed, U. S. Dept. of Ag., and J. C. Mohler, Kan. State Bd. of Ag.

Springfield, Ill., Nov. 12.—The market movement of grains in Illinois has been slower than usual due to unsatisfactory prices. A larger amount of wheat than usual has been fed to livestock. Reserves of old corn on Illinois farms 12,568,000 bus., or below average but slightly larger than 9,345,000 on hand a year ago. This compares with the five-year average of 15,876,000 bus. for Illinois.—A. J. Surratt, sr. agricultural statistician; J. A. Ewing, ass't agricultural statistician.

Denver, Colo.—Receipts of grain during October were: Wheat 354 cars, corn 327, oats 11, rye 5, barley 94, beans 38, mixed grain 1, grain sorghum 1, hay 235, against wheat 230 cars, corn 162, oats 44, rye 1, barley 47, beans 671, grain sorghum 2, hay 369, in October, 1930. Shipments during the same period were: Wheat 97 cars, corn 162, oats 2, rye 2, barley 13, beans 390, against wheat 33 cars, corn, 46, oats 26, barley 3, beans 40, in October 1930.—H. G. Mundhenk, sec'y Grain Exchange.

St. Louis, Mo.—Receipts of grain during October were: Wheat 4,026,400 bus., corn 856,800, oats 433,400, rye 2,600, barley 104,000, kafir 38,400, hay 1,608 tons against wheat 2,037,000 bus., corn 1,601,600, oats 902,000, rye 39,100, barley 275,200, kafir 13,200, hay 17,184 tons in October, 1930. Shipments during the same period were: Wheat 2,821,800 bus., corn 161,247, oats 423,200, barley 12,800, kafir 7,200, hay 218 tons, against wheat 1,649,400 bus. corn 852,700, oats 1,049,400, rye 14,300, barley 68,500, kafir 8,400 hay 8,016 tons in October, 1930.—C. B. Rader, sec'y Merchants Exchange.

Montreal, Que.—Receipts of grain during October were: Wheat 8,418,621 bus., corn 9,750, oats 1,323,910, rye 132,542, barley 391,057, flaxseed 63,236, hay 28,325 bales against wheat 9,624,837 bus., corn 30,900, oats 757,614, rye 241,021, barley 577,365, flaxseed 145,122, hay 51,931 bales, in October, 1930. Shipments for the same period were: Wheat 6,715,249 bus., corn 1,909, oats 784,702, rye 65,715, barley 147,695, hay 23,285 bales against wheat 6,476,038 bus., corn 953, oats 109,140, rye

52,401, barley 63,091, hay 35,703 bales, in October, 1930.—J. Stanley Cook, sec'y Board of Trade.

Winnipeg, Man., Nov. 16.—Loading of grain during the month of October along the lines of the Canadian National Railways on the prairies show a decided increase over those of the previous two years. Marketings for October, 1931, totaled 43,242,000 bus.; compared with 20,054,000 bus. in October, 1930, and 22,967,000 bus. in October, 1929. Loadings since the first of October this year have reached 29,812,000 bus. in 20,841 cars, compared with 15,327,000 bus. in 11,355 cars last year and 14,344,000 bus. in 10,620 cars in 1929. On Oct. 30, 1931, there were 33,689,000 bus. in store in country elevators on Canadian National Railways, compared with 23,455,000 bus. at the corresponding time last year.

Kansas Wheat Feeding Increased

Kansas farmers have fed and will feed 33,546,000 bus. of wheat to livestock, including poultry, during the season July 1931 to June 1932. This report is based on the judgment of nearly 500 Kansas bankers replying to a special inquiry of the Kansas State Board of Agriculture. The amount of wheat fed and to be fed from the 1931 crop is 15% of the 223,641,000 bus. produced. The best estimate of the amount of wheat fed from the 1930 crop is 23,328,000 bus. based on reports from farmers, feed-lot operators, bankers, and other sources. This was 14% of the 1930 wheat crop. Kansas farmers fed an average of 3,163,000 bus. of wheat each year to all kinds of livestock, including poultry, during the five years 1925 to 1929 or about 2.3% of the quantity produced. Feeding of wheat this year is reported as largest from the areas where the corn crop was poor, and from areas where the carryover of old corn was small due to the short crop of 1930. There is substantial basis for feeding of 33,546,000 bus. of wheat from the 1931 crop. The number of hogs to be fed out and cattle to be wintered over in Kansas this season is larger than last. Reports indicate that more cows are being milked than a year ago and these animals are receiving a larger amount of grain, particularly wheat.

More hogs were raised in the Kansas wheat territory this spring than last and many of them will be fed out on a ration containing much wheat. This is particularly true in areas where wheat was stored on the ground and moulded at the bottom to the extent of six or eight inches. More western raised lambs are being fed in Western Kansas this year and these will undoubtedly receive some wheat.

Big Movement of Canadian Wheat

The export movement of wheat from Canada has been running lighter during 1931 than during 1930, only to increase remarkably during October and especially during November.

From Aug. 1 to Nov. 7 the clearances from Fort William-Port Arthur were 60,295,751 bus., against 88,328,630 bus. in the corresponding period of 1930, as reported by the Dominion Bureau of Statistics. In October the movement increased substantially but it was not until November that exports began exceeding those of last year. For the week ending Nov. 6 export clearances of Canadian wheat amounted to 6,129,814 bus., compared with 3,753,221 bus. for the week ending Oct. 29. This movement is the largest since the week ended May 28, 1931, when 6,342,601 bus. were forwarded. A slight recession to 3,900,000 bus. followed for the week ending Nov. 13.

It is gratifying that this increased export movement has been concomitant with a rising price level, and that there are ample supplies awaiting shipment. Western country elevators hold 80,771,127 bus. wheat against 65,099,252 a year ago, and Fort William-Port Arthur 43,223,772 bus., against 40,924,180 a year ago, the total Canadian wheat supply in store being 170,150,220 bus. on Nov. 6, against 187,440,000 a year ago.

European requirements are larger and the offerings from Russia and elsewhere have been unequal to the demand stimulated by

the war clouds in the Orient. Buyers have turned to Canada with generous contracts calling for November loading.

Stone Breaks Down and Confesses

The broad-tape ticker carried an account on Nov. 24 of Chairman Stone's statement before the Senate Agriculture Com'te, which report, it is understood, was prepared as his offering to Congress. The following is taken from same.

Farm Board holdings of wheat now total 189,656,187 bushels. Altogether 329,641,052 bus. of grain were purchased at a total cost of \$270,204,503. Wheat acquired by the Stabilization Corporation cost an average of 81.97c per bushel.

The American carry-over at the beginning of the crop year was given at 319,000,000 bus.

Of the 35,000,000 bus. held on the Atlantic Seaboard, the Gulf and in Pacific Coast positions, some 21,458,809 bus. were sold.

It is estimated that the Board has between \$50,000,000 and \$65,000,000 left out of the half billion it started with. It can be closely figured that this misguided endeavor costs the producers of this country many times over the original sum appropriated.

The Board made its foreign sales of stabilization wheat at an average price of between 53 and 55 cents a bushel, and it has as yet no available figures as to its total losses.

Various commodity corporations set up at the instigation of the Board are Board controlled, altho "theoretically," Stone explained, they are supposed to be self-ruling.

Loans made from the revolving fund to co-operatives up to June 30, 1931, amounted to \$255,866,458, of which \$146,367,203 had been repaid.

The Board report on outstanding loans on that date were as follows:

Effective merchandising, \$50,769,539; construction or acquisition of facilities, \$13,066,721; education in co-operative marketing, \$30,000; commodity advances, \$45,632,993.

Loans outstanding in stabilization operations, according to the report, as of June 30, 1931, were: cotton, \$24,953,881; wheat, \$160,148,762.

The Grain Stabilization Corporation also owed commercial banks and intermediate credit banks \$83,000,000. The Corporation also had other unlisted liabilities on this date amounting to \$4,927,491, bringing the total invested in wheat stabilization on June 30, 1931, to \$248,076,253.

Up to June 30, 1931, the Board had sold for export, milling and other purposes, a total of 72,504,481 bus. of its stabilization wheat.

According to the Board's report, up to Nov. 1, 1931, sales of stabilization wheat were as follows:

To Brazil, 25,000,000 bus.; to China, 15,000,000 bus.; to Germany, 7,500,000 bus.; in regular trade channels, approximately 5,000,000 bus. monthly since June.

Carrying and storage costs of the Board's wheat runs between 15 and 18 cents per bushel a year. The Board's wheat is stored in many states. On demand of McNary, Stone promised to submit a detailed statement of the location of its storage facilities.

Stone said the board had entered into contracts with sixty millers, under which they were given price equalizing concessions on flour they sold in the foreign market in competition with world prices. Approximately 9,000,000 bushels of wheat came within the terms of these agreements.

The Board has 350 employees. This does not include personnel of the various commodity corporations set up by the Board.

Stone said the Board had only one \$10,000 a year employe, the chief of the loan division. George S. Miller, president of Grain

Stabilization Corporation, receives \$50,000 a year.

The Board has loaned the Grain Corporation approximately \$38,000,000, and it was repaid around \$21,000,000. The Corporation obtains its funds from the Board and commercial banks.

Stone said total commitments of the Board reached as high as \$800,000,000 at one time.

McNary announced the com'te will question Milnor and other officials of the various commodity corporations.

Senator Brookhart asked:

"Why didn't you treat all farmers alike and stabilize all surpluses?"

"That would have been impossible," Stone replied.

Cotton purchases up to June 30, 1931, aggregated 1,319,809 bales, cost, \$107,533,246. Average purchase price, \$81.48 a bale, or 16.3 cents a pound.

Loans to cotton co-operatives, up to June 30, \$70,530,915. Advances to cotton stabilization corporation to that date, \$74,953,881.

Total spent in cotton stabilization operations, \$133,460,038. Total repaid, \$58,506,156.

Decrease in Wheat Flour Production

In 1930 after the new crop came on the market there was a sharp increase in the production of flour, but so far this year the production is under that of July.

During September, 1931, 1,033 mills reported to the Department of Commerce that they had ground 44,840,000 bus. of wheat, against 49,381,000 bus. by 1,028 mills reporting in September, 1930. The August figures also showed a reduction, being 44,412,000, against 47,653,000 in August, 1930.

Wheat stocks held by mills Sept. 30, were 139,001,879 bus., against 154,111,000 bus. on Sept. 30, 1930. Flour stocks also were lighter, 3,531,000, against 3,940,000 bbls.

Weevil infestation has been favored by the peculiar weather conditions in California this year. Correction of the condition is being sought thru authority of the State Department of Agriculture, which may compel fumigation of weevil infested warehouses.

World's Wheat Situation

H. C. Donovan, statistician for Logan & Bryan, in his carefully compiled annual summary of the world's wheat situation as it existed on Nov. 15 allows for total exports of 815,000,000 bus. during the crop year ending July 1, 1932, and for a total carryover at that time of 475,000,000 bus., a decrease of 168,000,000 bus. from what was carried over last July 1. This promised decrease in carryover becoming generally apparent early in October, was in sharp contrast to the early promises and actual carryovers during the past four years, when substantial increases developed each season.

With the reservation that changes may occur from future estimates relative to the yield in Australia and Argentina, and that information regarding Russia still continues to be very unreliable, Mr. Donovan makes the following estimates (6 ciphers omitted):

	July 1, 1931 Carryover plus crop	Sur- plus	Exported to Nov. 15	May Still Export	Carryover Next July
U. S.	1,203	433	55	113	265
Canada	448	338	78	140	120
Argentina	266	186	31	110	45
Australia	208	158	43	95	20
Russia	990	90	59	31	..
Others	500	85	40	20	25
Totals	3,615	1,290	306	509	475

The man who has a chip on his shoulder carries an unnecessary burden.

The growing contempt for law is attributable in large measure to a mistaken zeal for more and ever more law.—Governor Ritchie of Maryland.

It is no good being good unless you are good for something. The tragedy is not in not knowing, but in not knowing that you don't know.—Sir Josiah Stamp.

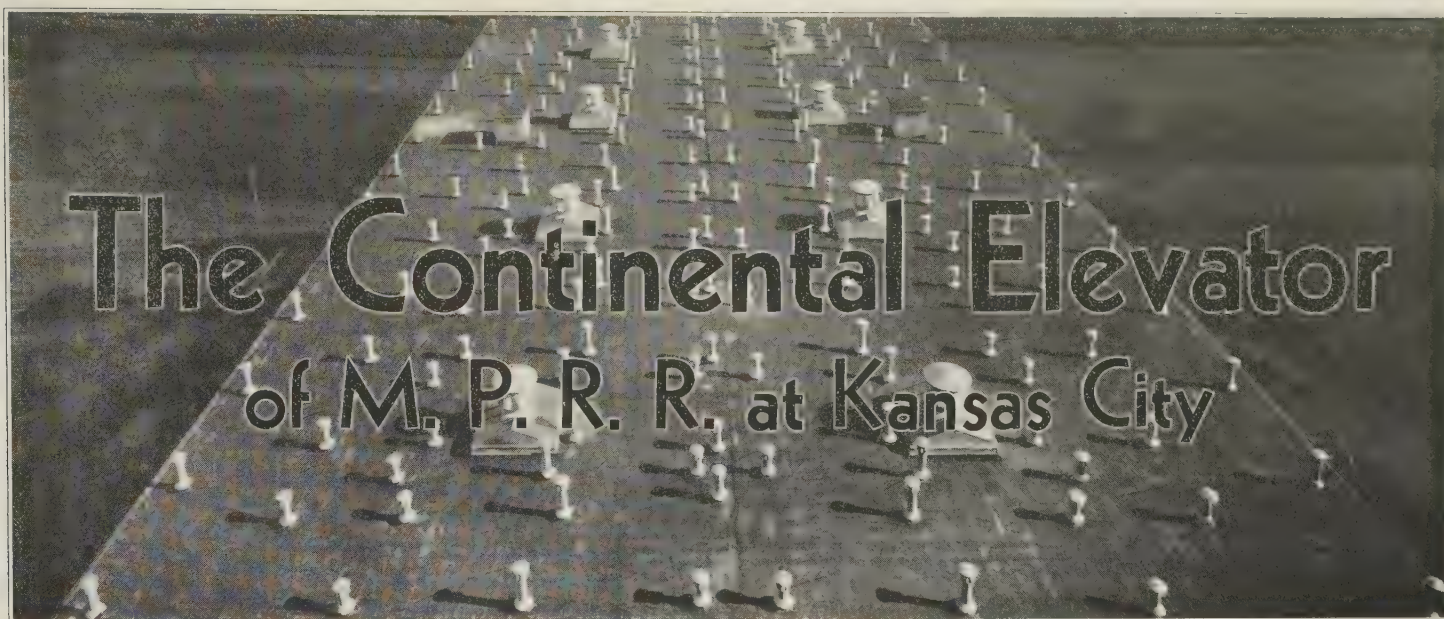
All export grain firms have been called upon by the Argentine government to make a full statement of exchange operations. It is charged that the depreciation of the peso is due to grain firms exporting heavily but holding their bills abroad. The weekly exports of corn have been breaking records and ought to have relieved the pressure on the peso.

Daily Closing Prices

The daily closing prices for wheat, corn, oats, rye and barley for May delivery at following markets for the past two weeks, have been as follows in cents per bushel:

		Wheat											
		Nov. 12	Nov. 13	Nov. 14	Nov. 16	Nov. 17	Nov. 18	Nov. 19	Nov. 20	Nov. 21	Nov. 23	Nov. 24	
Chicago	65 3/4	64	61 3/4	64	65 3/4	63 3/4	65 1/4	60 3/4	61 1/4	59	60		
*Winnipeg	62 1/2	59 1/2	58 1/2	61 1/4	63 1/4	61 3/4	63	59 3/4	60 1/4	58 1/4	58 3/4		
*Liverpool	69 3/4	67 1/2	66 1/2	69 3/4	70 3/4	66 3/4	68 1/2	66 3/4	66 1/2	64	64 1/4		
Kansas City	58 3/4	56 3/4	54 3/4	56 3/4	58	56 3/4	58 1/4	54 1/4	54 1/4	52	52 1/4		
Minneapolis	73 3/4	71 1/4	68 3/4	72	74 3/4	72	73 3/4	70	70 1/4	68 1/4	69 3/4		
Duluth, durum	73 3/4	71	68 1/4	71 1/4	73 1/4	71 1/4	72 1/4	68 1/4	68 1/4	66	67 3/4		
Omaha	58 3/4	56 1/4	54 1/4	56 3/4	58 3/4	56 3/4	57 3/4	53 1/4	53 1/4	51 1/4	..		
St. Louis	65 3/4	64	61 3/4	64	65 3/4	63 3/4	65 1/4	60 3/4	61 1/4	59	..		
Milwaukee	65 3/4	64	61 3/4	64	65 3/4	64	65 3/4	60 3/4	61 1/4	59 1/4	..		
		Corn											
Chicago	48 1/4	46 3/4	46 3/4	47 3/4	50 3/4	48 3/4	50	46 3/4	47 3/4	46 3/4	45 3/4		
Kansas City	45 5/8	44 1/4	44	46	48 3/4	47 3/4	48 1/4	45 1/4	45 1/4	44 1/4	43 3/4		
Omaha	45 5/8	44 1/4	43 3/4	45 3/4	49	47 3/4	48 1/4	45 1/4	45 1/4	44 1/4	..		
St. Louis	48	46 3/4	46 1/4	47 3/4	50 3/4	48 3/4	50	46 3/4	47 1/4	46 1/4	..		
Milwaukee	48 3/4	46 3/4	46 3/4	47 3/4	50 1/2	49 1/4	50	47	47 3/4	46 3/4	..		
		Oats											
Chicago	29	28 3/4	27 3/4	28 3/4	29 1/2	28 3/4	29 1/2	28	28 3/4	28 1/4	28 3/4		
Winnipeg	36 3/4	36	35 1/4	36 3/4	37 3/4	36 3/4	37 1/4	36	36 3/4	35 3/4	35 3/4		
Minneapolis	26 3/4	26 1/4	25 3/4	26 3/4	27 3/4	27 1/4	27 3/4	26 3/4	27 3/4	27 1/4	27 3/4		
Milwaukee	29	28 3/4	28	28 3/4	29 1/2	29	29 1/2	28 3/4	28 3/4	28 3/4	..		
		Rye											
Chicago	55	54 1/4	52 3/4	55 3/4	57 1/4	55 1/2	57	53 3/4	54	52 1/4	52 1/4		
Minneapolis	51	50 3/4	47 3/4	51 3/4	53 1/2	52	53 3/4	50 1/4	51 1/4	49 3/4	50		
Winnipeg	53 1/2	53 1/4	51 3/4	54 3/4	56 3/4	55 1/4	56 3/4	53 1/4	54 3/4	52 3/4	52 1/4		
Duluth	52 1/4	51 3/4	48 3/4	52 3/4	54 3/4	52 1/4	54 3/4	50 3/4	51 3/4	49 3/4	50 3/4		
		Barley											
Minneapolis	40 3/4	39 3/4	39 3/4	40 1/2	41 1/4	40 3/4	42 1/4	40 1/2	41 1/4	40 1/2	40 1/2		
Winnipeg	44 3/4	44 1/4	43 3/4	46	46 3/4	45 3/4	46 1/4	45	44 3/4	43 3/4	45 1/4		

*Deduction made on wheat only for depreciated currency.



Ventilators on Roof of Storage Annex of The Continental Elevator

Kansas City's rapid growth as a grain market has been greatly accelerated during the current year by the building of 14 elevators or storage annexes of reinforced concrete so that now its 15 regular elevators have a storage capacity for 43,005,000 bus., its 16 private elevators have storage capacity for 5,047,000 bus. and its 12 mills have additional storage for 11,765,000 bus., giving a total of 59,817,000 bushels available storage room.

Kansas City has more fire proof storage and more modern elevators than any other market and its 19 railroads, with a mileage of 72,390 miles of track haul grain to this attractive market in ever increasing volume. In 1900 Kansas City received 46,638,250 bus. of grain; in 1910 67,072,000 bus.; in 1920 98,526,700 bus. and in 1930 137,702,950 bus. which included 95,996,800 bus. of wheat, 30,022,500 bus. of corn, 2,480,500 bus. Kaffir corn, milo maize and feterita, 5,594,000 bus. oats and 468,000 bus. rye.

The Missouri-Pacific Railroad has a total mileage of 7,419, of which 2,839 miles are in Kansas, 474 in Nebraska and 206 in Colorado. All of its lines help materially to swell the grain receipts of Kansas City. So it was but natural that this enterprising Railroad should provide a new modern-up-to-date fire proof elevator to expedite the unloading of its cars. In its new rapid handling elevator are incorporated many improved features which will prove most attractive to operators everywhere.

In the design, construction, equipment and operation, the Railroad Engineers who watched the development of the plans with

eager interest claim to have the last word in elevator construction.

TRACKAGE: Eleven side tracks extending approximately 1,800 feet east and west from the working house provide ample room for expediting the handling of cars to and from the pits and loading spouts. These tracks are numbered across the yard, beginning with Nos. 1 and 2 tracks through the shipping shed on the north side of the working house and moving south across Nos. 3, 4, 5 and 6 tracks that pass thru the receiving shed, the four storage tracks south of the receiving shed and one clear track.

Just south of the present yard, between it and the main tracks of the Missouri Pacific R. R., space is reserved for laying six more tracks when the storage capacity is increased.

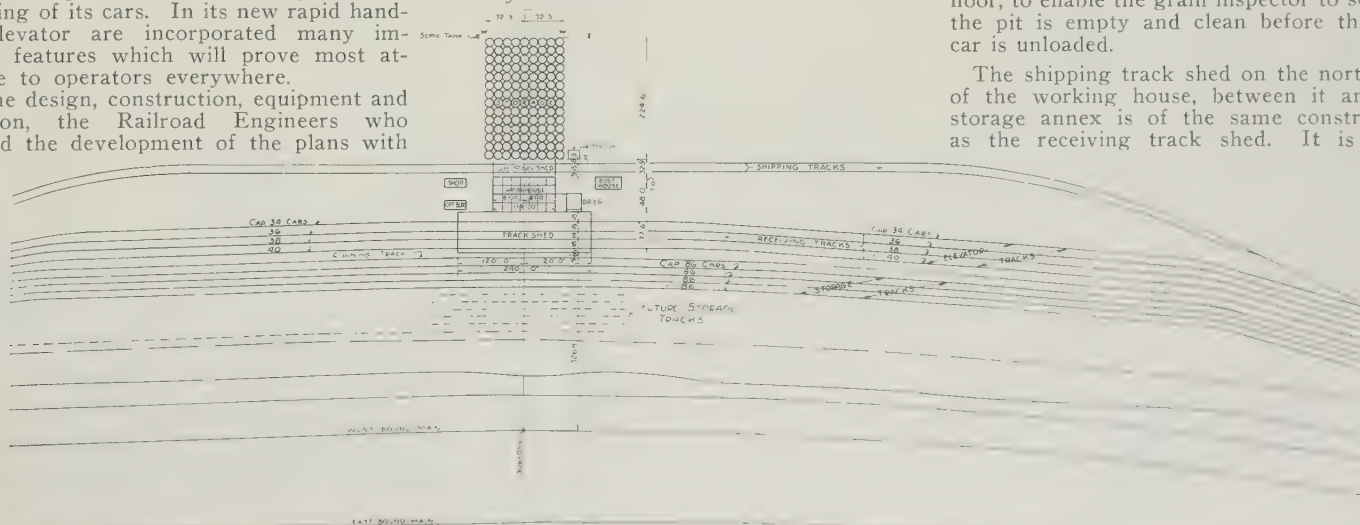
THE RECEIVING TRACK SHED which is 240 ft. long, 77½ ft. wide and 27 ft. high, houses the four receiving tracks. It is built of structural steel, sided with corrugated iron and covered with a concrete roof, made water-tight with 5-ply built-up roofing. Both ends of the shed are open and a number of windows in its side wall as well as six large skylights in roof admit ample daylight. Flood lights at both ends are provided for night work. Extension lights are also arranged for use in cars and the arms from the unloading equipment which hold these vapor-proof lamps are flexibly mounted so that if the car should

be moved unexpectedly the door jams simply push the light out of the way unharmed.

The original plans of the track shed provided for twelve receiving pits and construction work included all of them. But before the house was completed the plans were changed to include a Richardson car dumper, which displaced one-half of the steel hoppers receiving pits. This leaves six steel hoppers receiving grain from cars by power shovels. Each pair of shovels is driven by 10 h.p. motors. Two more can be put into service should the car dumper be out of commission. Chandler car door openers are used to open the way for the power shovels.

Cars are spotted over the receiving sinks with a 4 drum car puller, driven by a 75 h.p. motor. One drum under each track is driven by a line shaft from the motor. Hog backs in the receiving pits distribute the grain on the 48 in. conveyor belts that carry it to the two receiving legs, for lofting to garners. Gates under the pits operate on roller bearings and each row of pits is protected with a four lever interlocking switch to prevent grain from different cars becoming mixed. This is operated from the work floor. The conveyor belt under each row of pits is driven by a 10 h.p. Fairbanks-Morse motor, transmitting power thru a Link-Belt silent chain drive. In each receiving pit is a light, controlled from the track floor, to enable the grain inspector to see that the pit is empty and clean before the next car is unloaded.

The shipping track shed on the north side of the working house, between it and the storage annex is of the same construction as the receiving track shed. It is fitted



Property Plat of The Continental Elevator of Mo. Pacific R. R. at Kansas City
[See pages 587 to 595 and Front Cover]

with a 2-drum car puller and 75 h.p. motor for spotting cars on the two tracks.

THE CAR DUMPER installed on track No. 3 has a capacity for unloading 11 cars per hour. It requires a crew of only four men, two on the dumper and two for a switch crew.

The Richardson feeder was invented by Henry Richardson to get around installation difficulties for the Richardson Car Dumper on the first track in the receiving shed. This delivers grain from the huge 34x12 ft. steel hopper of the car dumper to the boot of the 50 inch lofting leg.

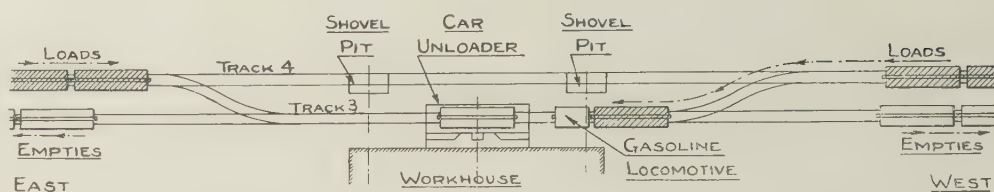
The feeder is a steel belt, with aproned sides, closed over the top, which moves a horizontal body of grain, 30 inches high and 48 inches wide, at speeds from 25 to 75 ft. per minute instead of the customary receiving belt speed of from 700 to 800 ft. per minute. This belt drops grain into the boot of the lofting leg at a rate of 16,000 to 45,000 bus. per hour. A hog back in the hopper of the car dumper keeps grain from spreading out on the belt and spilling over the head-pulley, when the belt is at a standstill.

Thru the use of this feeder dust is kept in the grain as it moves into the boot of the lofting leg at a speed controlled by a regulator between the motor and the driving mechanism. What dust arises is sucked into the leg casing and passes into the dust collector at the top. The body of grain moving into the boot is kept so clear that a man may hold his head above it in the enclosure without discomfort to eyes or nostrils.

"High-speed feeding of grain to a belt causes dust, abrasion and breakage," says "Daddy" Richardson. "An interesting analysis for engineers would be the abrasive action on wheat when, moving horizontally at 700 ft. per minute, it meets a vertical belt traveling at the same speed."

Operation of the feeder is dependent upon the weighman's preference. Only after the weighman has pushed a starting button will the starting button controlled by the dump operator set the feeder in motion. Signal lights keep the weighman and the dump operator informed of each other's moves. And an electrically operated indicator on the scale floor informs the weighman whether the apron feeder is running or still. Either can stop the feeder instantly.

There is not much use in having such unloading capacity without the facilities for



Track 4 is used for loaded cars; track 3 is used only for empties. The gasoline locomotive in the track shed of the Continental Elevator pulls loaded car from the west end of track 4 over switch to track 3, pushing an empty off car dumper and spotting a loaded car on dumper in a single movement. Empty is pushed back of switch on track 3 by a flying switch, and engine moves over the same switch to pick up a loaded car from the east end of track 4 adjacent. The operation is repeated in the opposite direction.

getting cars to dumper. For this purpose a 30 ton Plymouth gasoline switch engine is used. This operates over two tracks as demonstrated by the drawing herewith.

The Plymouth locomotive pulls a loaded car on track No. 4, spots it on the dumper on track No. 3, moves back and picks up another car on the opposite end of track No. 4 while the first car is being dumped, then it pulls the second car onto the dumper, simultaneously pushing the empty car off and back of the switch on track 3. Engine then moves to the opposite side of track 4 and picks up another loaded car. This operation is endlessly repeated, the engine shuttling back and forth over the dumper, depositing empties on track 3 and picking up loaded cars from track 4. This Plymouth engine also spots cars for the power shovel pits on track 4 without interfering with operation of the dumper.

This track arrangement, with the use of an engine, enables the operators to keep the car dumper running at capacity, pouring a steady stream of grain into the house.

WORKING HOUSE: With an eye to the future the Missouri Pacific railroad has equipped this first unit of the Continental Elevator with a working house capable of serving 7,000,000 bus. of storage. Its foresight will greatly simplify the addition of more storage bins as they are needed. The working house is 114 ft. long, 65 ft. wide, and it rises 215 1/4 feet above the working floor.

On the roof are two pent houses. One of these incloses the machinery for a passenger elevator with a 4x6 ft. self-operating car. At one side of the elevator shaft is a steel stair case that extends from the top to the bottom of the house. In this shaft is also provided space for piping and elec-

tric conduits, which makes them accessible from every floor landing and intermediate stair landings.

The stair and elevator section is separated from the rest of the house by fire-doors. The second pent house covers the top of an extra long shipping leg in the northwest corner of the house.

Each of the three receiving legs has 465 ft. of belt. The center leg, serving the Richardson Car Dumper has a 50 inch belt, carrying two rows of 24x8 inch buckets staggered. This is driven by a 175 h.p. enclosed synchronous motor.

Each of the other two receiving legs have 42 inch belts carrying two rows of 20x8 inch buckets staggered. Each is driven by a 150 h.p. enclosed synchronous motor, thru a silent and roller chain drive. Each of the four shipping legs have 452 ft. of 42 inch belt carrying two rows of 20x8 inch buckets. One receiving leg and one shipping leg belt is cotton; all other leg belts are rubber covered.

The four shipping legs are located on the north side of the working house, and deliver grain to scales Nos. 2, 4, 6 and 7. Four 15 inch shipping spouts on each side of the working house facilitate the loading of cars. These reach two tracks on each side of the house. Each shipping spout except one has inlets from at least three scales. If nothing but shipping is being done 7 cars can be loaded at a time, employing the full use of weighing facilities. This gives a loading capacity of from 45 to 50 cars an hour. At the head of each shipping spout is a steel platform to facilitate repairs.

Each leg except the screenings leg, is operated by an individual enclosed motor, ventilated to the outside and fan cooled, transmitting its power thru double reduction



Daylight Track Shed of The Continental Elevator at Kansas City, Mo., showing Car Dumper, Gasoline Switch Engine and Power Shovel Drives.
[See pages 587 to 595 and Front Cover]

Link-Belt silent and roller chain drives. All legs can be stopped from push-button stations at each floor in case of emergency.

Head pulleys are 84 inches in diameter. The 30 inch boot pulleys operate on S. K. F. ball bearings and have closed, dust-proof ends. They require almost no attention, tho conveniently located in case of emergency.

Grain elevated by the three receiving and four shipping legs is spouted direct to the seven 3,000 bu. garner. Each garner's gate operates on roller bearing hangers to expedite the dropping of its contents to the scale hopper immediately below.

THE SCALE FLOOR contains seven 2,500 bu. hopper scales arranged in a row the length of the workhouse. Each hopper has 48 inch rotary valves which will drain quickly. The scale valves are opened and closed by a rack and pinion device operated by a hand wheel which can be locked in any position. The entire operating device is supported by the scale frame to avoid any effect on the weighing. Scales Nos. 1, 3 and 5 are used for receiving grain. The other four are used for shipping and for weighing up stock. Weighmen have an office in a bay that sticks out from the South side of the working house on the scale floor. Windows in the bay enable the weighmen to observe what progress is being made in the clearing of the loaded cars. In this bay is a folding blackboard that diagrams all the bins in the house, and is used by the weighmen to record grain in storage.

A pneumatic tube system provides quick communication between the scale floor office and the car receiving shed and for passing tickets. Should the air fail so that the pneumatic tubes would not work, a simple ticket elevator, light and carefully balanced for speedy operation, may be used.

Weighmen have full control over the routing of grain from the time it leaves the cars until it reaches storage. They have preference on all receiving and shipping signals. They set the turnheads below the scale hoppers to direct grain to the transverse belt, storage belts, work house bins, drier or wherever they are instructed to send it. They are in constant communication with all parts of the house.

In the story below scale hoppers is a 42 inch reversible transverse belt running full length of working house, operated by a 20

h.p. enclosed motor, and equipped with a movable tripper that will divert grain to any bin in the working house thru the seven Mayo spouts on the floor below, the spouts leading to the six receiving belts running out over storage bins, and to the bins in the drier house adjacent.

DISTRIBUTING FLOOR: The turn head under each scale, which is set by the weighman in routing the grain, distributes direct to a number of bins in the work house, to four of the six conveyor belts over the storage tanks, and to the transverse conveyor belt.

The seven rectangular Mayo spouts on the bin floor receive grain from the transverse conveyor belt. The lower sections of the spouts are supported on single 16 inch pivoted ball-bearing wheels by which they may be set to spout into the desired bins. All inside bins may be reached by at least two Mayo spouts while the bins at each end of the house are served by only one Mayo. Thus five of these spouts reach from 12 to 15 working house bins. Two of the Mayo spouts may receive grain from shipping legs through by-pass spouts around scales when grain is simply turned.

In the bin story of working house are 66 rectangular and square bins. Some are used for sacking and others as garner to the cleaners and clippers but most of them are used for holding grain to be used in mixing.

Wells are provided for four additional receiving legs, which may be put in when storage capacity is increased. These wells are closed at the bottom and arranged to drain thru their walls into the space between the front and back leg casings so each well can be used for storage until needed for legs. No waste space is left in the bin story.

Concrete columns from basement are set under bin corners to give maximum support with a minimum number of columns.

On the work floor are 6 mixing chambers and spout ends that direct grain from any combination of working house bins, running as high as 16 at the same time and diverting grain to the receiving or shipping leg boots. Spouts have rack and pinion valves controlled by rope wheels.

A 42 inch reversible transverse belt running full length of basement and out to basement of

drier house can receive grain from drier and from any working bins thru the mixing chambers. It delivers grain to the boots of any of the receiving or shipping legs.

The basement and boot pits were made water tight by applying six coats of Ironite inside and two coats outside. Further protection is provided by several sump pumps at the lowest points in the basement.

A fire escape extends from the roof down the south side of working house to the roof of the receiving track shed.

A TWO-STORY LEAN-TO between the shipping track shed and the working house is open to the work floor the full length of the working house. On the first floor of this lean-to is a wheat washer, a Monitor Clipper, an Eureka No. 37 Clipper and two Eureka Cleaners.

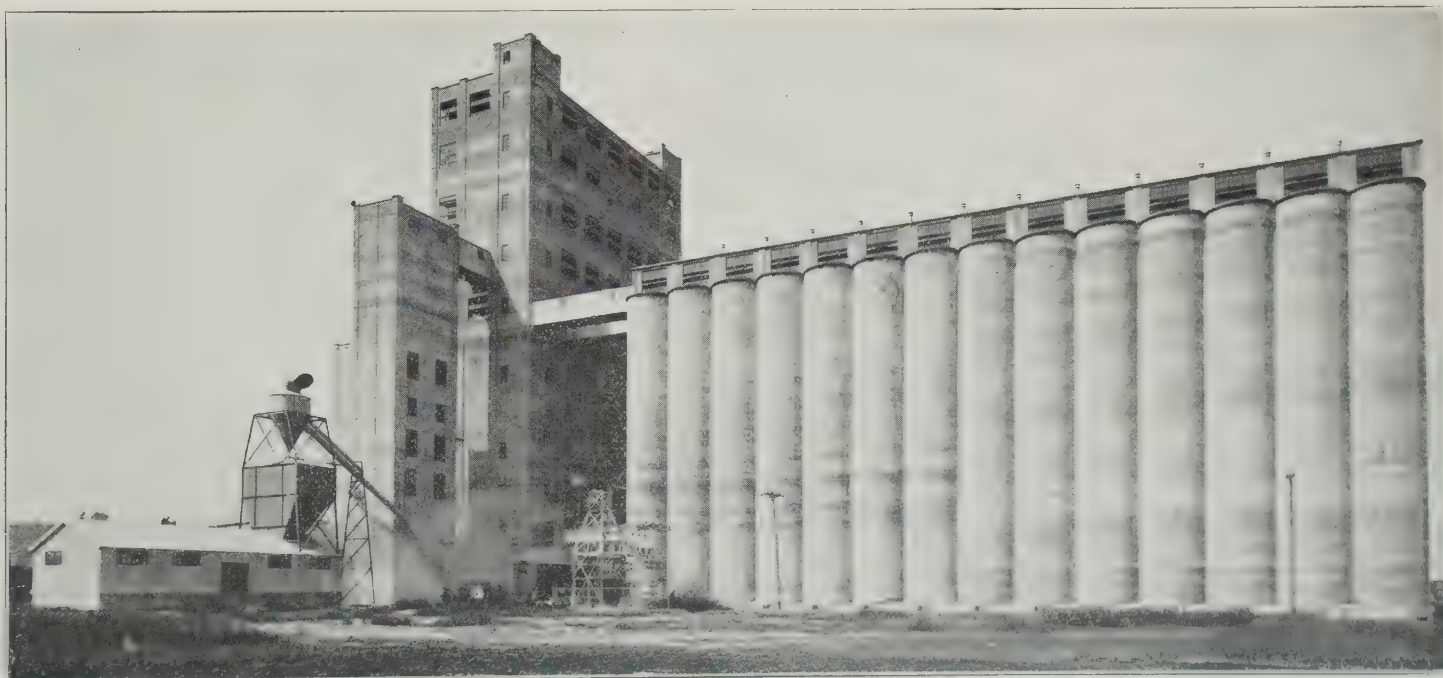
The two No. 15 Eureka standardized, steel clad receiving separators are each equipped with Eureka-Buhler vibrationless sieve drives, ball bearings on fan shafts and Eureka worm and gear type brush sieve cleaners under the main and seed screens.

Each of these cleaners has capacity for 1,800 bus. of wheat per hour over the fine screens; 3,000 per hour over the medium screens; 6,000 per hour over the coarse screens, and will handle 5,500 bus. of corn or oats in the same time.

The No. 37 Eureka steel clad oat clipper is complete with carry-by spout and liming attachment so that the machine can be used for clipping oats and treating smutty wheat. Cylinder shafts on this machine run on ball bearings and the shoe is driven with the Eureka-Buhler vibrationless sieve drive. The carry-by spout permits stock to travel over the shoe, by-pass the clipping cylinder and enter into the tail aspirating leg, a handy feature when oats need aspirating only.

A No. 11 Monitor Clipper works on cleaning grain. This has capacity rated at 1,500 bus. per hour. It is operated by a 75 h.p. enclosed motor.

The wheat washer is a combination washing and drying machine of new design that works by centrifugal force, washing wheat with water under strong pressure and drying it by spinning thru a drying chamber. The grain is in contact with water for so short a time that it absorbs very little and it is seldom necessary to run it thru the drying chamber a second time before putting it in storage.



Dust House, Drier House, Working House and Storage Annex of The Continental Elevator at Kansas City
[See pages 587 to 595 and Front Cover]

The clean grain from the cleaners and clippers is spouted to the cleaner and clipper legs respectively. The screenings from these machines is dropped to a 12 inch screw conveyor in the basement of the working house and is delivered to the screenings leg. The screenings leg is also used to serve the wheat washer.

These legs elevate grain to bins, or to conveyor belts that deliver it to distant parts of the house. Both the cleaner and clipper legs have 26 inch belts carrying two staggered rows of 12x8 in. buckets. The screenings leg has a 14 in. belt carrying a single row of 12x7 in. buckets. Two of these legs are driven by synchronous motors, one by a fan cooled enclosed squirrel cage motor.

The second story of the lean-to is devoted to grain sacking and has spout entrances from the nearest row of head house bins, with careful arrangement of sacking and weighing machinery for efficiency in preparing shipments for the southeast. Sacking scales of improved design will expedite the bagging of grain.

The east end of this second story is used as an office for grain inspectors.

THE STORAGE ANNEX is 144 ft. 6 ins. by 224 ft. 6 ins. by 129 ft. 3 ins. high. The 126 cylindrical storage tanks are assembled in a close block of nine rows of 14 tanks each. The tanks are 15 ft. 4 ins. in diameter and 104 ft. deep with 7 inch walls. Between tanks are 104 interstice bins, 102 of which are used for storage purposes and two are left open at the bottom and extended thru the roof to constitute long chimneys for ventilating the 11 ft. basement that encloses the shipping belts under the tanks.

All inside tanks and interstice bins are vented thru the roof by individual pipes thru the cupola, topped by individual ventilators. Outside tanks are ventilated by louvres under the roof line.

Tanks are all fitted with inserts for later installation of a Zeleny Thermometer System for detecting heating of stored grain.

Grain moves from the workhouse to the storage tanks over any of six 42 inch conveyor belts that travel through the 49 ft. conveyor belt bridge to the far end of the cupola. A 40 h.p. pipe ventilated and fan cooled motor at the far end of the cupola drives each belt thru a silent chain drive. Conveyor rolls and concentrators are fitted with roller bearings and grain is diverted by two-pulley trippers. The edges of the bin openings are raised 3 inches above the level of the cupola floor and the floor is slightly sloped so that should water enter it will drain away to the sides and thru openings in the walls before it reaches a level which would flood a bin. Each bin is provided with two spout holes to permit filling the bin to its full capacity.

Sky lights and ventilators in the roof keep the cupola light and airy. Ample window space is provided along the side walls for light and the release of pressure in case of dust explosion. Each of the six conveyor bridges is fitted with an automatic fire cut-off that drops over the conveyor belt in case of fire, and prevents fire's transmission to the storage tanks.

The six 42 inch shipping conveyors in the 11 ft. basement under the storage tanks cannot be operated unless a leg is running to carry the grain away and choke-ups are prevented thru this interlocking of starting push buttons. Similar interlocks are provided for all receiving legs.

Push buttons for stopping a conveyor belt, both at the top and the bottom of the storage annex, are located every 100 ft. so that a man working with a belt while it is in operation need never run more than 50 ft. to a stopping button.

A warming room is provided in the cupola of storage annex for workmen. Electric heat reduces the fire hazard.

ELECTRIC MOTOR EQUIPMENT: The National Electric Code is constantly being revised with a view to decreasing the fire hazards in grain elevators due to electrical causes. The present Code establishes grain elevators as being included in "Class II—Hazardous Locations." The Code recognizes the explosive nature of grain dust and attempts to minimize this hazard by careful specification of the type of electrical equipment that may be used throughout the elevator. This specification covers all the motors, as well as the control equipment, and includes also the distribution system.

Insurance schedules are generally based upon the risks that are represented. The lowest insurance rate prevails where these risks are reduced to a minimum. Many District Codes go beyond the requirements of the National Electric Code and offer positive insurance savings if their regulations are thoroughly observed.

It is for the above reasons that the new Missouri Pacific Elevator at Kansas City is equipped throughout with electrical machinery which follows not only the letter, but the intent as well, of the National Electric Code. In the design of this equipment it was intended to anticipate as far as possible future additions to the Code which would tend to tighten requirements still further. The electrical equipment was designed to avoid future penalties as well as those now established.

The electrical hazard does not arise solely from the presence of dust. It has been found that rats gnaw the insulation of open motors, thereby presenting an opportunity for the power circuits to come in contact with the motor frame with subsequent arcing to ground with the possibility of explosion attending this arc. These two hazards were completely overcome in the Missouri Pacific Elevator by the selection of enclosed motors wherever grain dust was present in an explosive quantity. The only

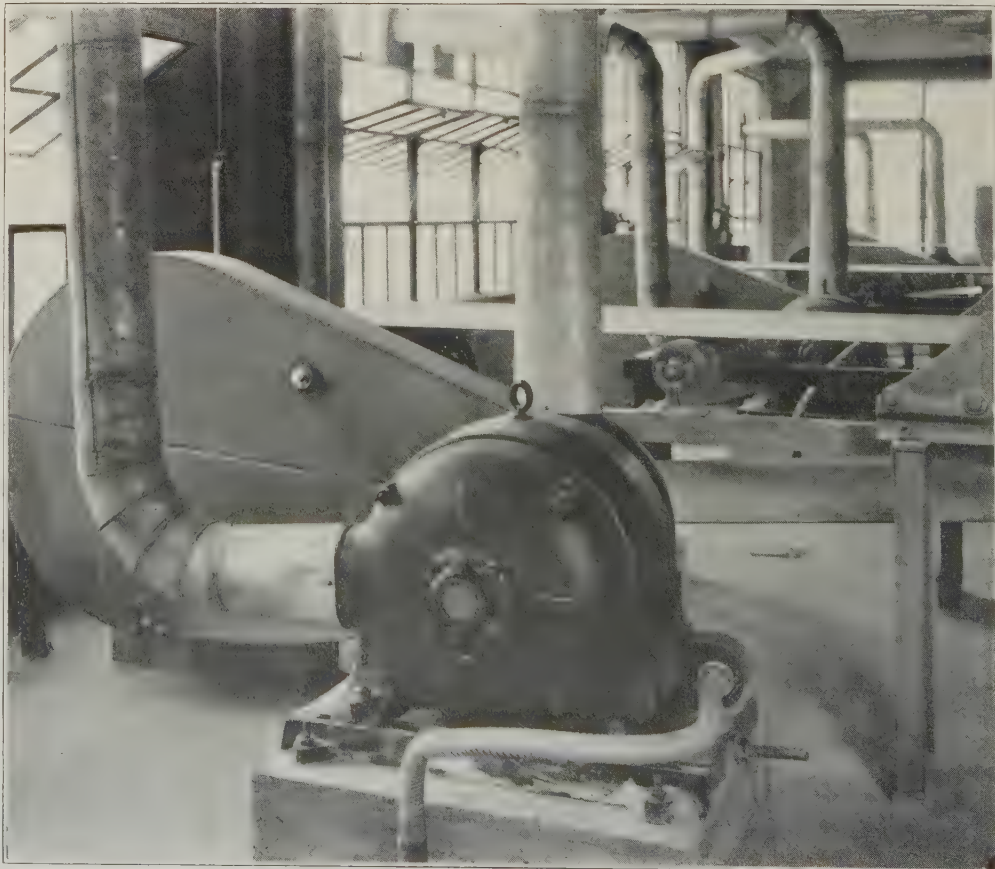
open motors used, were installed in dust-tight rooms, thus minimizing any explosion hazard should the insulation of the motor break down.

Of the sixty-five Fairbanks Morse motors installed in this elevator, all except four are of the enclosed type. These four were installed in dust-tight and vermin-proof rooms.

The remaining sixty-one motors were completely enclosed in dust-tight cast metal frames, absolutely preventing the intrusion of dust. The joints of the motor frames were all carefully machined in order to insure dust-tight construction. The larger motors are ventilated by means of metal pipes extending to an intake point which is free of dust. The cooling air after passing through the motors was also carried in pipes to an outside point. This construction was used on all of the leg motors, including the seven synchronous motors driving the main legs, as well as the three squirrel cage motors driving the clipper, cleaner and screening legs, and also the seven motors which drive the transverse and storage conveyors in cupola.

On the lower floors of the elevator where a great deal of dust prevails, it is impracticable to use the pipe ventilated type of motor because of the difficulty in securing dust-free air for ventilation. For this reason, the engineers specified the use of a totally enclosed fan cooled type of motor which requires no ventilating pipes and which may be placed in any location without fear of dust clogging the ventilating passages. The foregoing relates only to the mechanical design of the motors with particular reference to their protection against intrusion of dust.

The electrical characteristics were also given thorough consideration. The electrical load in a grain elevator has always presented several engineering difficulties, since the largest portion of the load is usually intermittent in character. In the past



Six 40 h.p. Double Squirrel Cage Pipe Ventilated Motors Driving 42 inch Receiving Conveyors on Bin Floor of The Continental Elevator at Kansas City.
[See pages 587 to 595, inclusive, and outside front cover]

it has been the custom to use the squirrel cage type of motor throughout. While this type of motor possesses the simplest construction and the greatest reliability, it also possesses the very serious fault of having a low power factor under low loads. In a great many cases a low power factor is penalized by the power company and the rates are increased accordingly. In designing this elevator, the engineers analyzed the electrical problem very carefully in order to secure the lowest possible power costs. They have, in this case, selected equipment which will protect the operators against any possible penalties for low power factor. This was accomplished by the use of Fairbanks Morse Synchronous Motors on the seven large legs.

These synchronous motors are excited to carry full load at unity power factor. They will, of course, operate as part of the group drive which includes the leg as well as the conveyors leading to and from that leg. Under full load the squirrel cage motors driving the conveyors will have a high power factor. When this group of drives is running with low load, the squirrel cage motors will have a very low power factor, but the synchronous motors at light load will have a leading power factor and the resultant power factor will be high enough to escape penalty. A great many power factors diagrams were worked out during the study of this arrangement and it was found that the power factor will be very close to unity under all conditions of load. It will not be necessary to adjust the synchronous motor excitation for these changes in load.

The electrical design of the squirrel cage motors was developed to fit the load conditions for which the motor was selected. Wherever it was necessary for the motor to start under heavy load, motors of the double squirrel cage type were used. If the starting load was not severe, the engineers selected motors of the line start single squirrel cage type. The larger squirrel cage

motors were built with windings and rotors of the conventional squirrel cage type suitable for reduced voltage starting. The heavy conveyor belts were all driven by the double squirrel cage motors. A standard type of squirrel cage motor was used only when the motor could start without load.

All of the motors used in the elevator and in the car dumper were built and furnished by Fairbanks Morse & Company. They are all equipped with SKF self-aligning anti-friction bearings of the highest obtainable quality. These provide perfect freedom from any possibility of hot boxes with attendant fire hazard.

The leg motors comprise one 175-H.P. Synchronous Motor and six 150-H.P. Synchronous Motors. There are fifty-eight induction motors of various sizes and designs used in this elevator. The total horse power including both the synchronous and induction motors is approximately 2640-H.P.

The control equipment is practically all of Allen Bradley manufacture. The starters for the synchronous motors are arranged with positive motor driven timing elements to insure the proper sequence of operation.

The synchronous motors are all started at reduced voltage. This will provide more than sufficient power to start an empty leg. In case they are unable to start a stalled leg at reduced voltage, full voltage is automatically applied, thus developing the full starting torque of the motor. If the leg cannot start under full voltage, the motor is automatically taken off the line. These synchronous starters are arranged in a dust-tight control room located on the garner floor. The motor-generator exciter sets for the synchronous motors are also located in this control vault. This vault is partitioned off from the garner room and is equipped with self-closing steel doors, thus complying with the requirements of the Code. It is ventilated by a louver intake at the floor line and an exhausting fan to the outside near the ceiling.

A variety of types of motor control was

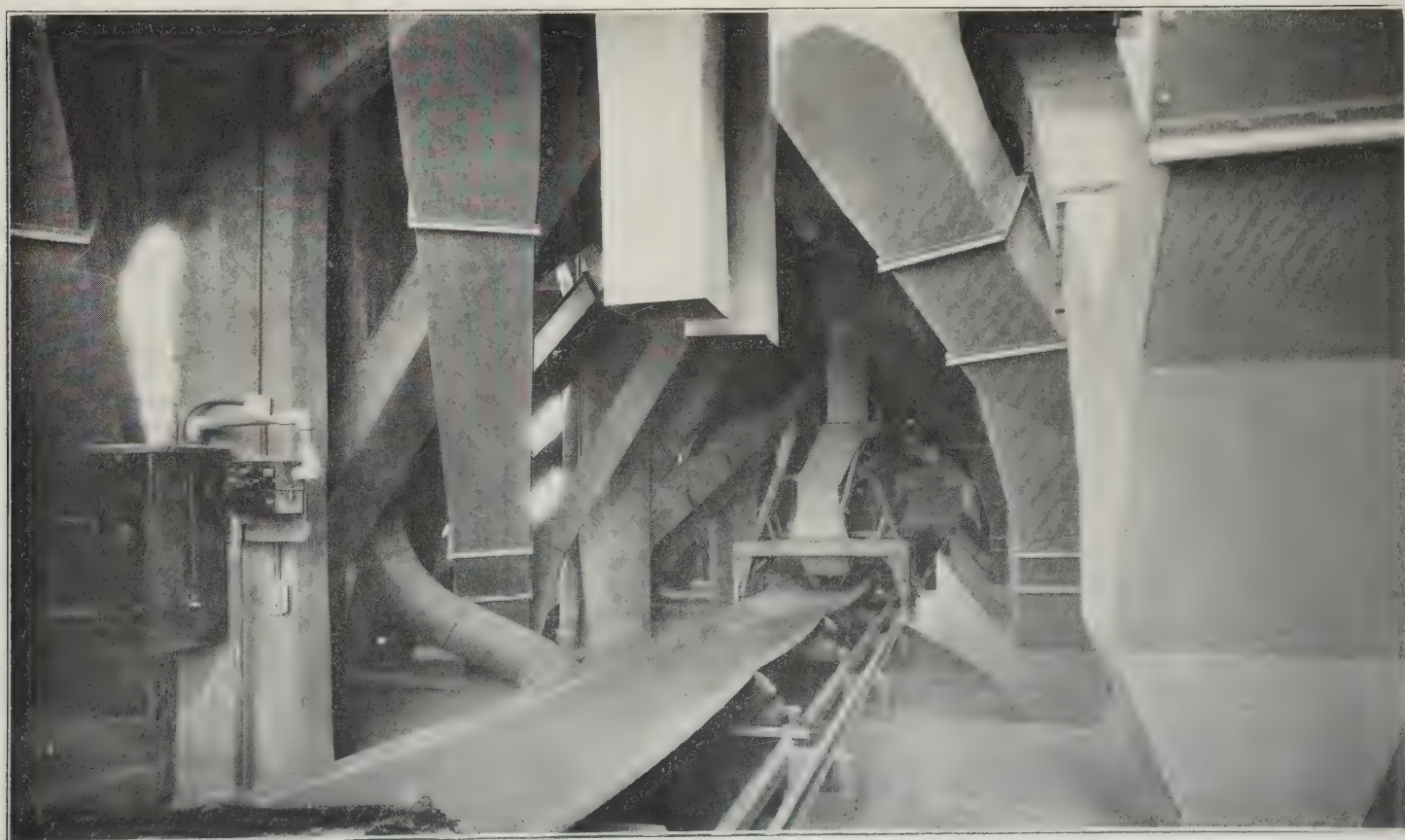
required for this installation, there being starters of the across-the-line type, or the auto-transformer type, and of the resistance type. All of the starters are of the remote control or push button type. The push buttons are located at points selected for the convenience of the operators and all of the push buttons are of water-tight and dust-tight construction. The starters were placed at points where suitable space was available.

The starter used with the 75-h.p. squirrel-cage motors driving the clippers employs a two-coil auto-transformer for reducing the starting voltage. This starter is fully automatic, and electrical and mechanical interlocks prevent any possibility of short-circuiting the transformer windings. The design also prevents the operation of the starter with the cabinet cover off, with the attendant hazard of dust explosion. The cover is of heavy boiler plate and is provided with a thick felt gasket to exclude all dust. The cover is clamped in place by thumb screws on swivel bolts attached to the cabinet.

The starters for the line start squirrel cage motors are all of dust-tight construction, conforming with the Code in every respect. In addition to this, they are built with an electrical inter-lock so that the starter cannot operate unless the enclosing cabinet is completely drawn up to the point where dust is thoroughly excluded. These starters cannot operate if the cabinet is open.

The two transverse conveyors are operated by 20-h.p. squirrel-cage motors, which are controlled by Allen-Bradley Reversing Switches and dust-tight reversing push-button stations. This control station employs the general construction of the Allen-Bradley Type N-1100 series of splash-proof and dust-tight stations. The cover and box are cast iron, cadmium plated, with a gasket between. The skirted push buttons operate in brass sleeves, which exclude dust and moisture.

The Bulletin 740 Resistance-Type Starters



Dust-tight Allen-Bradley Bulletin 705DT Reversing Starting Switch with push-button control, used in connection with reversing switch for controlling transverse conveyor of The Continental Elevator at Kansas City.
[See pages 587 to 595 and Outside Front Cover.]

for the 75-h.p. motors operating the car pullers and the cleaner and clipper legs are provided with safety cabinets but not of dust-tight construction, since the car-puller starters are not subjected to the hazard of dust in their location, and the controls for the cleaner and clipper legs are located in a dust-tight vault.

One point of interest is concerned with the starting equipment of the 5-H.P. Motor driving the conveyor from the Richardson Car Unloader. It was desired to have the control arranged so the motor could be started only by the joint action of the unloader operator and the weighmaster. It was desired that neither one could start the motor until the other was ready. This is accomplished by means of a double control with a push button available to the unloader operator and another push button located for the weighmaster's convenience. As soon as either is ready to begin lofting grain, he pushes his button, but the motor will not start until the other button is pushed by the other operator. In an emergency either operator may stop the motor, but it cannot be started again until both are again ready.

In conclusion, It should be remembered that the complete engineering of this elevator electrical equipment was along the lines of maximum safety with minimum operating charges.

A COMPLETE SIGNALING SYSTEM of communication is maintained between all parts of the plant, by use of telephones, signal lights, sounders and semaphores.

In the routing and handling of grain the weighman is one of the most important cogs in the grain handling machine, so practically all signalling systems are designed in their relation to his needs.

The foreman has two phones. On one of these he can both make and receive calls. On the other no incoming calls can be made. It is reserved for his use only in reaching other parts of the plant, for he often finds it necessary to do so quickly. The weighmen are likewise equipped.

In the movement of grain from the receiving shed to the scale floor a comprehensive light system is chiefly depended upon, three lights being located at each point, a yellow, green and red. A similar system of lights

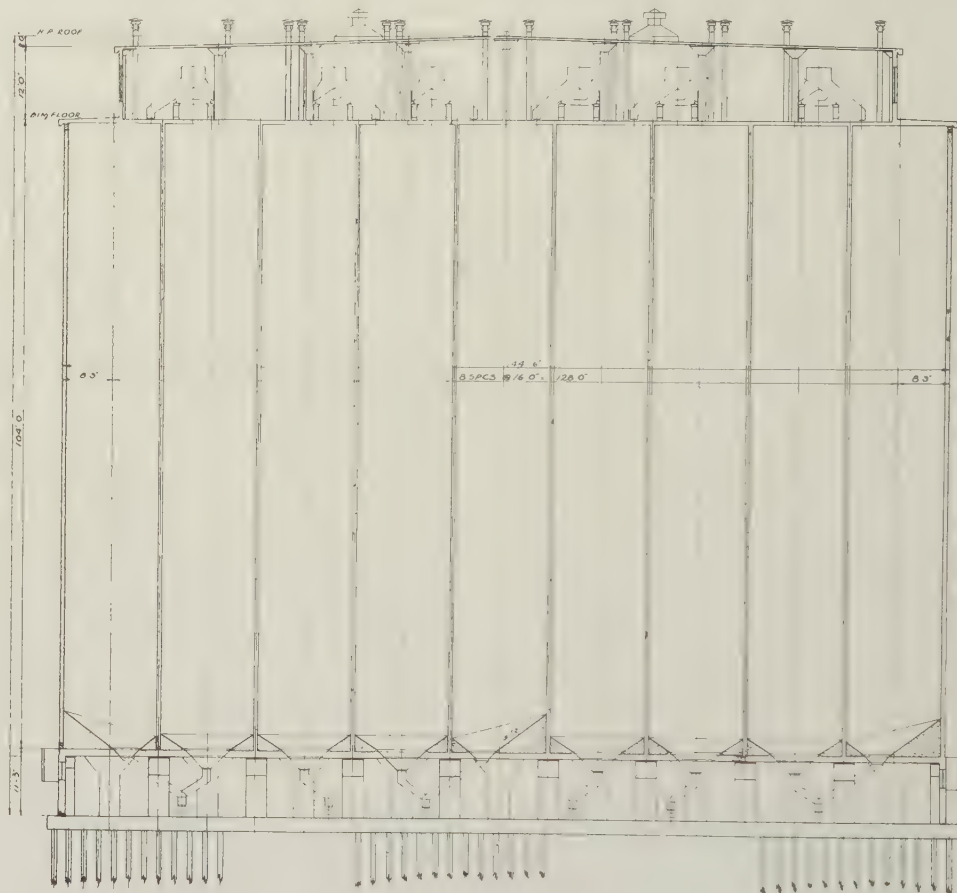
is used between the scales and the shipping spouts.

Four boards about the plant keep key men informed of how grain is moving thru this light system. One is located on the work floor, No. 2 is on the scale floor, No. 3 is in the foreman's office, and No. 4 is associated with the shipping spout and weighing system, also recording in the foreman's office. The foreman can tell just what each man is doing all the time.

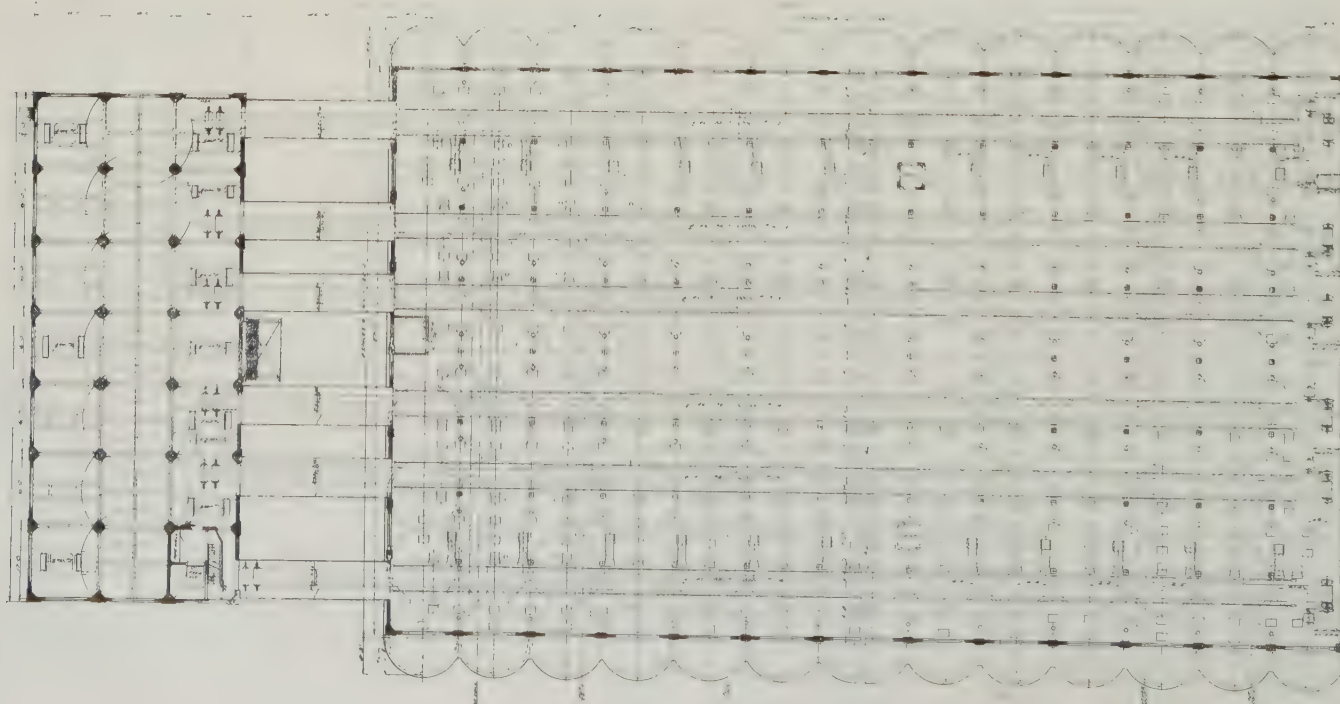
In case the light system fails an old fashioned sounder and semaphore system is called into use.

DUST COLLECTING: Eight units of a Day dust collecting system empty into the mains that carry the dust to a dust house 50 ft. northeast of the drier, where it is sacked and becomes a potential source of profit. All except the main unit have sub-collectors that settle the dust and empty it into the mains.

The first unit takes care of the floor sweeps



Cross Section of Storage Annex of The Continental Elevator



Bin Floor Plan of The Continental Elevator at Kansas City
[See pages 587 to 595 and Front Cover]

on the first floor, the cleaners and clippers, the receiving tunnels and shipping shed, and the basement.

Four units gather dust from the various working house floors and from the conveyor gallery over the storage tanks, thru floor sweeps.

Two units gather light dust from the leg heads and the conveyor belt loaders and trippers. This is an innovation that does much to reduce the explosion hazard. The hoods extend across the conveyor belts and are carefully adjusted to take nothing more than light dust.

Another unit works on the car dumper, where the pouring of grain from cars into the receiving hopper of the dumper releases a large amount of dust.

The last unit serves the drier and its loading and unloading facilities.

Each unit of the system has an individual enclosed motor. All but one of these are direct-connected to the fans. At the car dumper unit the fan is driven thru a tex-rope drive.

The dust house is constructed of structural steel, covered with corrugated iron, carrying a 23x60x45 ft. steel hopper under the huge main dust collector. Under the hopper are two Howes-Invincible dust packers and weighing equipment.

Attached to the east end of the dust house is a 23x60 ft. single story, structural steel and corrugated iron warehouse set on a concrete foundation, that is used for storing the sacked grain and elevator dust.

Besides the piping of all inside tanks and interstice bins in the storage unit to the outside to provide ventilation, each of the garners, scale hoppers, legs, and shipping spouts in the work house are also vented through the roof. Twenty ventilators stick up from the roof on the work house alone. These vents, in addition to the dust collecting system, help to keep the house cool and free of dust.

Practically all of the motors in the top part of the house are vented to the outside and kept cool by self-contained fans.

DRIER: A 1,000 bu. direct heat Hess Drier and cooler is housed in a 23x33 ft. reinforced concrete drier building 135 ft. high, located 20 ft. east of the work house and connected thereto by bridges that carry the transverse conveyor belts from the workinghouse. The drier is made up in two 500 bu. units, which may be operated separately.

Two 37 ft. garner bins for damp grain empty into the direct heat driers from which grain drains to a cooler, thence into garner

bins from which it may be moved back into the working house by the lower transverse conveyor. The garners hold sufficient grain to keep the drier going at full capacity for 12 hours.

The furnaces and fuel pits are in a basement under the drier. Coke is unloaded direct from cars into the fuel pit under the track from which it may be shoveled into the furnaces. A 40 ft. ramp leads from basement for ready removal of ashes.

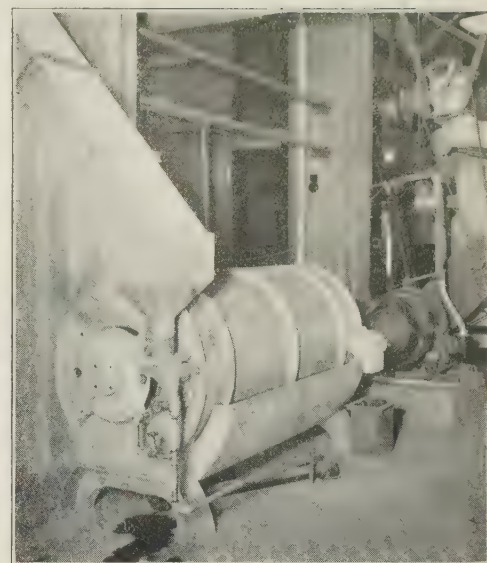
The three floors of the drier house are reached by a stairway on the outside of the building. Entrance to the top and bottom floors is thru the conveyor bridges.

These driers are automatically dust collecting and the building in which they are placed is provided with many large windows admitting daylight to all parts of the building. The driers are equipped with automatic temperature controls and many unique labor saving devices.

THE OFFICE AND SHOP BUILDINGS are alike in construction. Each has a reinforced concrete basement that extends well above the ground, and one story of brick with concrete roof above it. Dimensions are 23x46 ft., 22 ft. high.

The basement of the office building is devoted to employees locker rooms. The west end of the upper story contains employees lavatories and showers. In the east end is the superintendent's office.

In the foreman's office on the first floor of the working house is a folding blackboard that carries a diagram of the bin structure of the house. Folding it together protects the chalk marks from becoming obscured



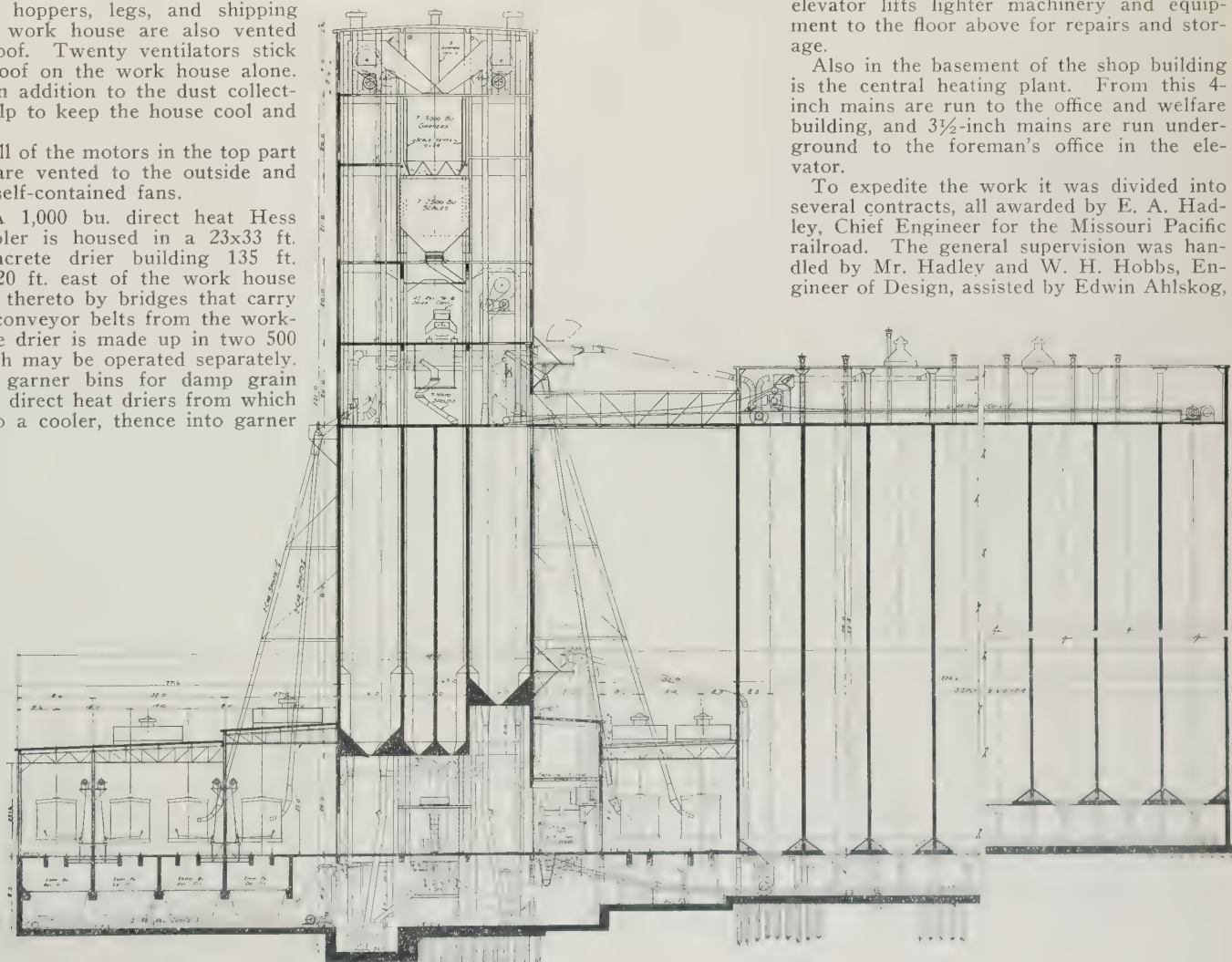
Wheat Washer in The Continental Elevator

from careless brushing against the board. In the basement of the office building is the central heating plant, from which 4-inch mains are run to the offices and welfare rooms, and 3½-inch mains are run underground to the foreman's office in the elevator.

In the shop building basement is the equipment for making repairs around the elevator, and a ramp is provided for entering with heavy machinery and equipment. An elevator lifts lighter machinery and equipment to the floor above for repairs and storage.

Also in the basement of the shop building is the central heating plant. From this 4-inch mains are run to the office and welfare building, and 3½-inch mains are run underground to the foreman's office in the elevator.

To expedite the work it was divided into several contracts, all awarded by E. A. Hadley, Chief Engineer for the Missouri Pacific railroad. The general supervision was handled by Mr. Hadley and W. H. Hobbs, Engineer of Design, assisted by Edwin Ahlskog,



Longitudinal Cross Section of The Continental Elevator at Kansas City
[See pages 587 to 595 and Front Cover]

Consulting Engineer. The field engineers were in charge of R. L. Ehrlich.

The Continental Elevator was designed by Edwin Ahlskog, a terminal elevator engineer of wide experience.

The Great Western Mfg. Co. supplied most of the grain handling machinery in the elevator, including specifically such important items as the head and boot pulleys, the conveyor frames with anti-friction rolls and concentrators, the trippers, the car pullers, the power shovels, and the wheat washer of new and unusual design. The boot pulleys turn on SKF ball bearings, and their ends are completely closed in, flush with the outer edges of the faces of the pulleys. A hand-hole and cover is provided in the end of each boot pulley so that work may be done inside the pulley, or the piece removed. The closing pieces are closely fitted and dust tight.

"Public Business: Private Business" will be the subject of an address Dec. 8 by Governor Albert C. Ritchie of Maryland before the Illinois Manufacturers Ass'n at Chicago.

As an indication of the rural district flare-up against so-called farm relief, this from the Dothan, Ala., Eagle, is typical: "Place no confidence in politicians. The utter collapse of Hoover's Farm Board that has spent \$500,000,000 is latest proof that politicians can do nothing but promise."

International Trade Must Be Promoted by Reciprocity

A bill has been prepared for introduction upon the assembling of Congress authorizing and requesting the president of the United States to negotiate treaties with foreign countries providing for mutual concessions in tariff duties for the promotion of reciprocal trade.

The bill is sponsored by the American Exporters and Importers Ass'n, which declares that

"It is now generally conceded that our loss of export trade is one of the main causes of the serious depression in business. If foreign countries are prevented by our excessive tariff rates from selling their goods in the United States and in retaliation therefor assess prohibitory duties on American goods, it is certain that the present overproduction of our farms, mines, and factories will indefinitely delay the return of prosperity unless through mutual tariff concessions foreign markets are opened up for their disposal."

Warning against joining "fly-by-night" co-operative organizations has been issued Wisconsin farmers by J. D. Beck, the state's commissioner of agriculture and markets. He called attention to the disposition of organizing racketeers to take advantage of the present depressed conditions and fleece the farmers in the name of co-operation.

Books Received

WEEVIL Damage, how to stop it in stored grain, is a 4-page leaflet describing the well known bisulfid of carbon treatment. Circular 380. University of Illinois Agri. Exp. Sta., Urbana, Ill.

HARVESTING THE CORN CROP in Illinois is a study of the relative costs of hand and machine husking. About 89% of the corn in Illinois is husked from standing stalks. Hand husking cost \$5.25 and machine husking \$3.55 an acre. Bulletin No. 373, 50 pages; University of Illinois Agri. Exp. Sta., Urbana, Ill.

TERMITES AND TERMITE DAMAGE, by S. F. Light, Merle Randall, and Frank G. White, is a discussion of the habit of termites, prevention and eradication of the insects by chemical treatment, and prevention by building construction methods. Circular 318, published by the University of California, College of Agriculture, Berkeley, Cal.

WHEAT VARIETIES on the High Plains of Oklahoma is a record of yields from 1924 to 1930 at Goodwell Exp. Sta. for each of 18 varieties, running as high as 55 bus. per acre. The high yielding group was composed of Turkey and Turkey related varieties and Blackhull. Minhardi, Burbank and Fultz were inferior under all conditions. Bulletin No. 200; 32 pages. Oklahoma Agricultural and Mechanical College, Stillwater, Okla.

THREAT TO THE AMERICAN CORN GROWER is the title of a pamphlet urging that a duty of 2½ cents per pound be imposed on tapioca to shut out the 182,000,000 lbs. now imported, and thus create a home market for 5,000,000 bus. more of home grown corn. It is stated that only 15 per cent of the imported tapioca is used in puddings, the remainder competing as glue or starch. The booklet is issued by the Corn Industries Research Foundation, H. E. Barnard, director, Indianapolis, Ind.

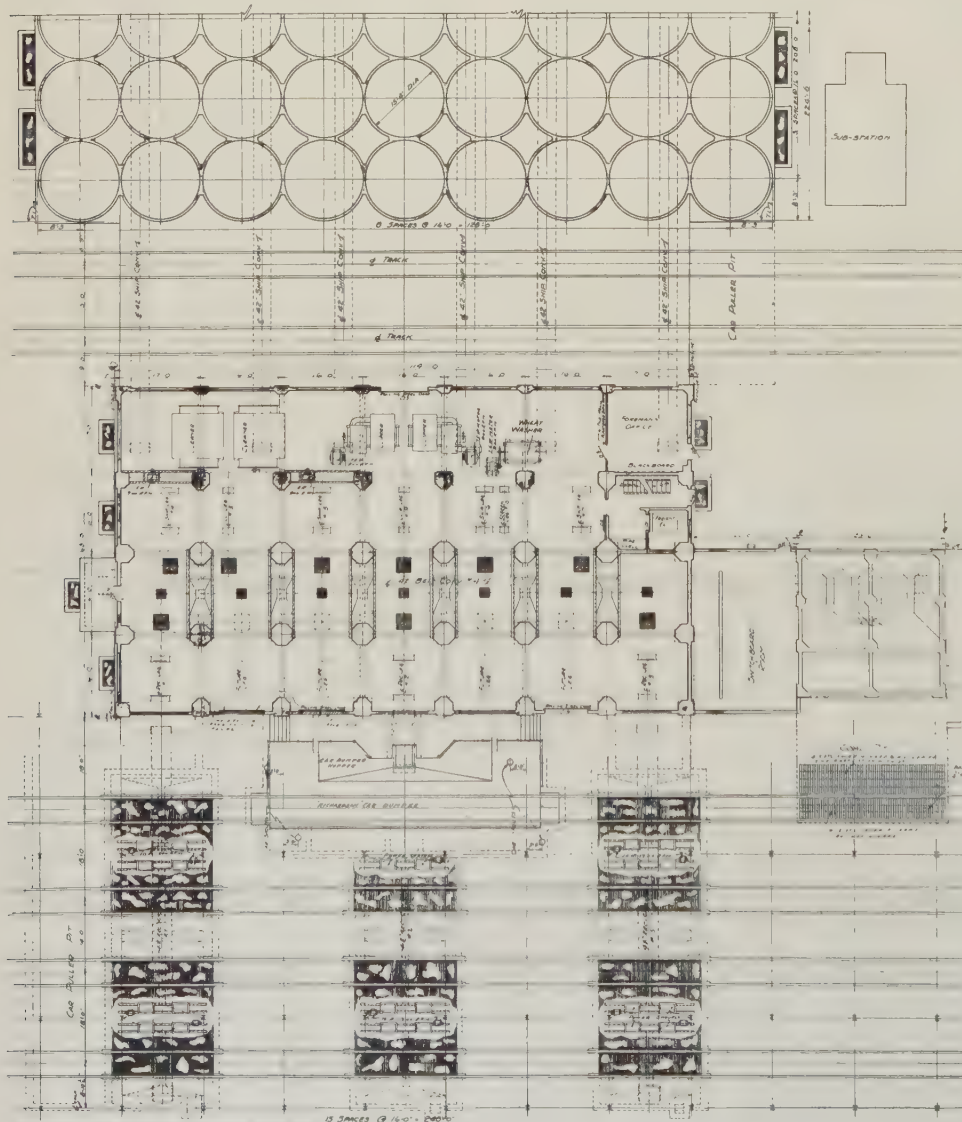
TEXAS, Source of Highest Quality Protein Winter Wheat in the Nation, is a beautifully prepared and well illustrated brochure being distributed to friends and patrons of J. Perry Burrus and the J. C. Crouch Grain Co. It calls attention to the 58,720,000 bu. Texas wheat crop of 1931, practically all of which averaged 13% protein or better, some of it going as high as 20%. The virgin soils, limited rainfall, comparatively dry spring seasons, and hot summers with abundant sunshine are given credit for producing the protein content which makes Texas wheat command a premium. Further causes for its protein content are described in detail. The booklet may be obtained free from J. C. Crouch Grain Co., Dallas, Tex.

MAKING FARMS PAY points the way out for both owner and tenant on worn out and mismanaged soils, being a narrative of personal experience in managing 1,000 farms by Cornelius J. Claassen. Most of our farm lands are owned by persons who are unable to apply efficient direction, affording an opportunity for a professional farm manager, such as Mr. Claassen. Good management costs money, but by grouping a number of farms under one direction the cost to each of the most expert control is made reasonable and profitable. This book is the first contribution to the literature of group management of farms in book form. Illustrated, 126 pages. The MacMillan Co., 60 Fifth Ave., New York. Cloth, \$2.

Chicago May Trade in Soy Bean Futures

The directors of the Chicago Board of Trade on Nov. 17 authorized President J. C. Murray to appoint a com'te to investigate the feasibility of establishing a market for transactions in soy beans for future delivery.

If found feasible, the com'te, which is composed of Geo. E. Booth, Frank J. Delany and Roland McHenry, is charged with the duty of drafting suitable rules and regulations.



First Floor Plan of The Continental Elevator at Kansas City
[See pages 587 to 595 and Front Cover]

Proposed Changes in Wheat Grades

A preliminary investigation is being conducted by the Bureau of Agricultural Economics into the advisability of making changes in the grades of durum and red and white winter wheat.

The principal reason given for these proposed revisions is that by the addition of these new subclasses the milling values in wheat are differentiated according to kernel texture much better for the miller of semolina flour, bread flour, or pastry flour, as the case may be, than under the subclass specifications of the present official standards. The principal objections to these proposed revisions appear to be (1) that an increase in the number of subclasses would require an increase in the number of elevator bins to store and handle the crops, and (2) that an increase in the number of subclasses for these classes of wheat would slightly complicate and slow down inspection procedure.

The proposed revisions would add one new subclass to the durum wheat standards, two new subclasses to the soft red winter wheat standards and two new subclasses to the white wheat standards.

The rules proposed follow:

Durum Wheat (class II)

This class shall include all varieties of durum wheat, and may include not more than 10% of other wheat or wheats. This class shall be divided into four subclasses as follows:

Subclass (a) Hard Amber Durum.—This subclass shall include wheat of the class durum consisting of 75-80% or more of hard and vitreous kernels of amber color. This subclass shall not include more than 10% of wheat of the variety red durum.

Subclass (b) Amber Durum.—This subclass shall include wheat of the class durum consisting of 50-60% or more but less than 75-80% of hard and vitreous kernels of amber color. This subclass shall not include more than 10% of wheat of the variety red durum.

Subclass (c) Durum.—This subclass shall include wheat of the class durum consisting of less than 50-60% of hard and vitreous ker-

nels of amber color. This subclass shall not include more than 10% of wheat of the variety red durum.

Subclass (d) Red Durum.—This subclass shall include wheat of the class durum consisting of more than 10% of wheat of the variety red durum.

Soft Red Winter Wheat (class IV)

This class shall include all varieties of soft red winter wheat and may include not more than 10% of other wheat or wheats. This class shall be divided into four subclasses as follows:

Subclass (a) Light Red Winter.—This subclass shall include wheat of the class soft red winter consisting of 75% or more of light colored and soft textured (not hard) kernels. This subclass shall not include more than 10% of soft red winter wheat possessing the characteristics of wheat of this class as grown west of the Great Plains area of the United States.

Subclass (b) Dark Red Winter.—This subclass shall include wheat of the class soft red winter consisting of 75% or more of dark colored and hard textured (not soft) kernels. This subclass shall not include more than 10% of soft red winter wheat possessing the characteristics of wheat of this class as grown west of the Great Plains area of the United States.

Subclass (c) Red Winter.—This subclass shall include wheat of the class soft red winter consisting of less than 75% and more than 25% of dark colored and hard textured (not soft) kernels. This subclass shall not include more than 10% of soft red winter wheat possessing characteristic of wheat of this class as grown west of the Great Plains area of the United States.

Subclass (d) Western Red.—This subclass shall include wheat of the class soft red winter consisting of more than 10% of wheat of this class grown west of the Great Plains area of the United States or any wheat of this class possessing the characteristics of soft red winter wheat as grown west of the Great Plains area of the United States.

White Wheat (class V)

This class shall include all varieties of white wheat, whether winter or spring grown, and may include not more than 10% of other wheat or wheats. This class shall be divided into five subclasses as follows:

Subclass (a) Hard White.—This subclass shall include wheat of the class white consisting of 75% or more of hard (not soft and

chalky) kernels. This subclass shall not include more than 10% of sonora wheat and wheat of the white club varieties, either singly or in any combination.

Subclass (b) Soft White.—This class shall include wheat of the class white consisting of 75% or more of soft and chalky kernels (not hard). This subclass shall not include more than 10% of sonora wheat and wheat of the white club varieties, either singly or in any combination.

Subclass (c) Common White.—This subclass shall include wheat of the class white consisting of less than 75% and more than 25% of hard (not soft and chalky) kernels. This subclass shall not include more than 10% of sonora wheat and wheat of the white club varieties, either singly or in any combination.

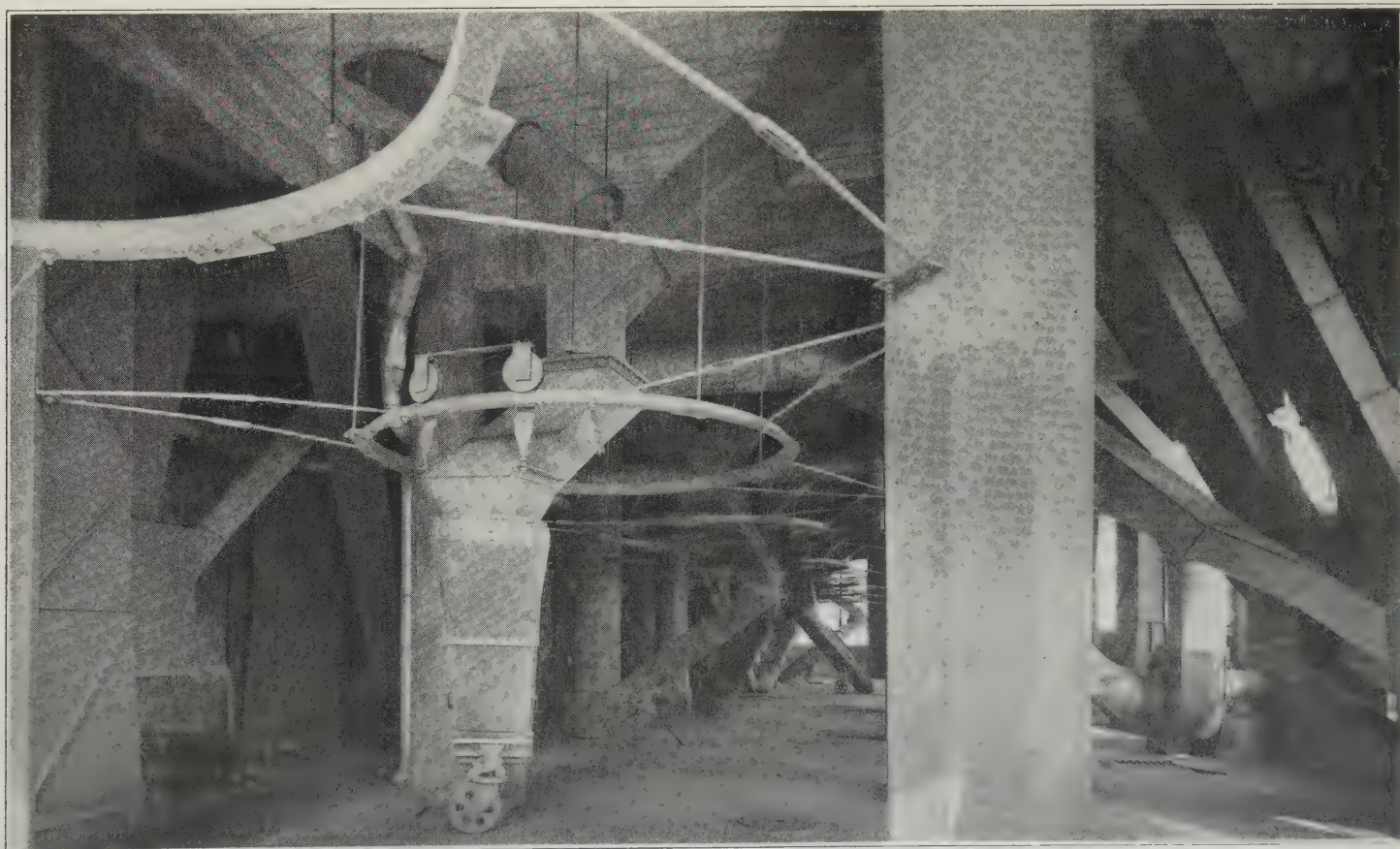
Subclass (d) White Club.—This subclass shall include wheat of the class white consisting of sonora wheat and wheat of the white club varieties, either singly or in any combination. This subclass shall not include more than 10% of wheat of the varieties of common white wheat other than sonora, either singly or in any combination.

Subclass (e) Western White.—This subclass shall include wheat of the class white consisting of more than 10% of sonora wheat and wheat of the white club varieties, either singly or in any combination, and which contains more than 10% of wheat of the varieties of common white wheat other than sonora.

The Department of Agriculture has submitted the proposed changes to the trade organizations. The changes will not be made effective until public hearings have been held. They should not be effective until the new crop starts to market.

On most soils in New York lime is necessary to insure a good catch of clover or alfalfa. Lime is a good side line for grain and feed dealers.

Representative Schafer of Wisconsin complains that the salary of Stanley Reed of Maysville, Ky., as counsel for the Federal Farm Board has been raised from \$10,000 to \$20,000 year, which is more than any cabinet officer receives. Horrors!



The Distributing Floor of The Continental Elevator at Kansas City, Mo.
[See pages 587 to 595 and Front Cover]

Government Encroachment on Private Business

From address by WALTER L. PIERPOINT, Omaha, Neb., before Nebraska Grain Dealers Ass'n.

The Agricultural Marketing Act or so called farm relief legislation is a politician's relief measure—a compromise. Let us look at it in the abstract. Was it sound and economic in principle or was it doomed to failure from its very structure? May I note some inherent weaknesses?

Big Pool Idea—Controlling price thru monopoly. Mere bigness does not necessarily mean success. Our idea of success is starting in a small way and working from the ground up—thru years of toil and experience rather than starting from the top with unlimited resources. Mere bigness is contrary to farmer psychology. The farmers fear size.

Not to effect economies in handling: Mr. Legge in beginning said he was not interested in saving a possible fraction of a cent in handling wheat—a few pennies on a bale of cotton; that probably private management of elevators have an advantage over co-operatives—certainly complimentary to the independent grain dealer. A business based upon service rather than contracts means lower costs of operation. A fair field and no favors benefits the consumer.

Excessive salaries were paid by the farm board. Mr. Creekmore, head of 12 cotton cooperatives drew \$25,000 salary and \$52,000 commission, annually.

Orderly marketing was the plan of relief for the farmer by the farm board. This was not based upon facts. The price of a commodity is determined not by its rate of flow to market but by the size of the total world crop. Prices are often highest when receipts are heaviest. This is because the purchaser is protected in price by hedges in futures. A grade northern wheat in Minneapolis for 29 years was 6½ cents per bu. higher on June 1st, the average high point than it was Sept. 1st, the low point. Our export business in grain is very orderly. Twenty-five per cent of the total annual exports are exported each quarter of the year.

The orderly marketing theory was exploded by experience of years. On Oct. 21, 1929, cotton sold at 18.4c. The Farm Board said the price was too low due to too great amount of cotton being thrown upon the market. Co-operatives were loaned money without limit on a basis of 16c. An attempt was made to peg the price at 16c. At the end of the season cotton sold at 10c resulting in a loss to the Farm Board, if taken at that time, of \$45,000,000 and a terrific loss to farmers who held on advice of the Board.

Surplus—wrong position. We should concern ourselves in improving the quality and reducing the cost. Surplus cannot be controlled in commodities which are world produced. Reduction of surplus in one country is balanced by increase of surplus in another. Cotton and sugar are grown in 60 countries.

Curtailment of acreage: Size of world crop determines prices. A vacuum here is replaced elsewhere. Cuba, five years ago, reduced acreage 5% one year; 10% each of the next two years—raw sugar dropped from 2½c to 1c in 5 years.

The very foundation of this bill was weak and its failure was foreshadowed. Similar efforts to control prices elsewhere had failed. In Japan, raw silk went from \$16 a pound to \$2 a pound. When Japan withheld 17% from the market, Italy increased her silk exports to U. S. 71%. Great Britain failed with the Stevenson Act. Rubber 20c a pound when legislation began, rose to \$1.20 per pound then dropped to 8c a pound—a failure after six years due to large surplus and increased production in other countries. You know the story of the attempted valorization of coffee in Brazil and the crash with a year's surplus on hand and increased production in Brazil of 20% and in other countries over 50%.

The Agricultural Marketing Act was inherently unsound. Like attempts in other countries it failed. Briefly, the result in practice, the Farm Board is a merchant given in the beginning \$500,000,000 of tax money and a free hand to use it. The Farm Board was in competition with its citizens who furnished this money. The Farm Board was a speculator buying and selling futures when it became apparent the orderly marketing theory was not succeeding. It was a banker loaning at one time \$284,000,000 to co-operatives to compete with you; 43% of it loaned at 1% to 2%, much of it, money you had borrowed at 6%. Fifteen

per cent of your business has gone to the Farm Board. Exports have heavily declined. Exports of cotton have declined 2 million bales per year for the past three years. Private business does not care to buy in a market controlled by Government. The surplus in the hands of the Farm Board creates distrust and fear.

There hangs over the market today, like a sinister cloud—200,000,000 bus. wheat and 1,300,000 bales of cotton, owned by the Farm Board, to depress values. Prices of commodities in which the Farm Board operates have registered, almost without exception, record lows. The country has had enough of this misnamed relief. It's time for the act to be repealed. It's time to get back to the original and first principles of Government.

The people, generally, are rapidly coming to realize that the problems of industry and agriculture now besetting us are going to be solved by the people themselves rather than by the fiat of national government. They are coming to see that the function of government is the political liberty of the individual citizen—encouraging imagination, initiative and enterprise rather than hampering them. They are coming to see that our system in government of checks and balances of debate and delay are wise in a political sense, but ill adapted for business which often requires quick decision. They are coming to realize that Federal Bureaus, Boards and Commissions (30,000 additional federal employees alone in the past 16 years) are a heavy burden of taxation.

People are coming to a state of mind where they are saying, instead of looking to Washington, "We must and can do this job ourselves." If this is a correct statement of the present tendency of public opinion, is it not reasonable to expect a leadership to be developed that will find a solution for our troubles?

A bill is to be introduced by Senator Nye of North Dakota authorizing the Federal Farm Board to pay \$1.25 per bushel for the first 2,000 bus. of wheat grown by each farmer. That will stimulate the production of wheat and make for lower prices.

India produces white wheat which yields more flour than any white wheat grown elsewhere in the world. Next in milling quality comes that grown in Australia, then that of the United States. In baking quality, however, the U. S. and Australian white wheats lead.

Chairman Stone on Government in Business

Jas. C. Stone, chairman of the Federal Farm Board, says:

The attitude of many objectors to Government in business is exemplified by recent action of the Minneapolis Chamber of Commerce, which adopted a resolution asking that the Farm Board be taken out of business, and the next day, commended the Government for extending the Federal barge service to the advantage of Minneapolis. They want the Government out of agriculture, but they do not want it to stop aiding their own businesses.

New Elevator of Farm Service Stores at Farmington, Minn.

A new elevator, warehouse, feed mill building equipment, office building and coal sheds have just been completed at Farmington, Minn. for the Farm Service Stores, Inc., who have their headquarters in Minneapolis.

The main elevator is divided into 10 bins having a cross workfloor and a capacity of 20,000 bus. The elevator is equipped with facilities for receiving from cars, as well as from trucks and wagons.

The leg is fitted with an improved head drive and an enclosed 7½ h.p. motor. A 3 h.p. motor operates the compressor and a 5 h.p. motor operates the unloading equipment from cars. A 6 ft. open type grate was used in the driveway along with a Strong Scott dump.

A warehouse having a 7-car capacity was built adjacent to the elevator.

The feed mill building is attached to the driveway and is equipped with 3 legs. Power is furnished by enclosed type motors which consists of 2 7½ h.p. and 2 25 h.p. motors, a cob crusher and a Triumph corn sheller, a Winona attrition mill, a batch mixer and dormant type scales are a part of the equipment. The special bulk bins were built to a special driveway fitted with the Ibberson special type loading chutes for handling feeds in bulk.

A corn crib and cob house were fitted with cob leg equipment. A 15-ton 18x9 type "S" motor truck scale was installed for receiving.

The coal sheds contain 6 bins, have a slab type foundation and floor. All of the buildings are covered with galvanized iron.

Mr. Ralph Birdsell is the local manager and the plant is located on the Rock Island railroad.

This replaces the elevator burned Aug. 6 following an explosion. The new plant was designed and erected by the T. E. Ibberson Co.

Coffee sales by the Grain Stabilization Corporation will be made under a plan submitted by the National Coffee Roasters Ass'n at a meeting Oct. 27 at Chicago. Sales will be made in lots of 500 bags, of 132 lbs. each, at the rate of 62,500 bags a month, beginning in October, 1932. At the convention of the Ass'n Oct. 28 a resolution was adopted: "The Ass'n is unalterably opposed to the principle of further extension of governmental operations in the field of private business." Brazil has already destroyed 2,217,000 bags of coffee, and has much more to trade for wheat or what have you?



New Plant of Farm Service Stores at Farmington, Minn.

Grain and Feed Trade News

Reports of new firms, changes, deaths and failures; new elevators, feed mills, improvements, fires, casualties and accidents are solicited.

ARKANSAS

Ashdown, Ark.—The Rowe grist mill has been sold to Joyner & Henderson.

Jonesboro, Ark.—The Jonesboro Roller Mill is constructing a new 2-story brick feed mill and warehouse, to replace roller mill burned last year. The new plant will cost \$25,000.

Bentonville, Ark.—Harry Kelley has just finished installing a flour and feed mill in the Haney Bldg. The equipment includes a corn sheller with a capacity of 2,000 bus. per day. Power is furnished by a gasoline engine.

CALIFORNIA

San Francisco, Cal.—Mail addressed to E. B. Cutter & Co. is returned unclaimed. Mr. Cutter, head of the firm, died on Aug. 31 as reported in the Journals at the time. He had been in the grain business 50 years.

CANADA

Calgary, Alta.—At the recent annual meeting of the Alberta Pacific Grain Co., Ltd., an operating profit of \$665,833.75 was reported.

Verigin, Sask.—The elevators of the Northern Elvtr. Co. and of the Peaker-Gibson Elvtr. Co., Ltd., both burned recently, together with about 40,000 bus. of grain.

Victoria, B. C.—The 1,000,000-bu. Victoria elevator has been leased for another year to the Alberta Wheat Pool, thru representatives of the Panama-Pacific Grain Terminals, Ltd.

Toronto, Ont.—Victor C. Green is reported to be slowly recovering from a serious operation, but he will not be able to take up his duties as manager for James Richardson & Sons, Ltd., for a while yet.

Calgary, Alta.—Premier J. E. Brownlee, of Alberta, who is a member of the board of the Alberta, Saskatchewan and Manitoba wheat pools, has appointed J. F. Percival, supervisor of co-operative credits in this province, as his representative on the boards of the three pools.

Winnipeg, Man.—The Canadian Wheat Pool has closed its office in Argentina, maintained for several years past, and called its representative, W. J. Jackman, home. John I. McFarland, the pool's general sales manager, decided to close all of the pool's foreign offices.

Winnipeg, Man.—Cancellation of the membership of Blackburn, Mills & Graham, Ltd., grain commission merchants, who also owned some small elevators, was posted Nov. 5. A. M. Blackburn and D. K. Mills, partners, were suspended from trading. Chas. E. Graham, whose name has been retained in the firm name, has not been connected with the firm for seven years.

Calgary, Alta.—The annual report of the United Grain Growers, Ltd., announced an operating profit for the fiscal year ended July 31, of \$993,100.62. The number of country elevators owned and operated by the company is 469, with two terminal elevators, one at Port Arthur, Ont., and the other at Vancouver, B. C., the latter being leased from the Harbor Commissioners.

Toronto, Ont.—The vacancy on the Eastern Grain Standards Board, occasioned by the death of A. O. Hogg, which occurred in August, has been filled by the appointment of E. D. Sullivan, with James Richardson & Sons, Ltd.

Montreal, Que.—The Canadian National Millers Ass'n, at its annual meeting held in the Board of Trade Bldg., this city, Nov. 5, the following officers were elected: Honorary pres., C. H. G. Short; chairman, Geo. A. Macdonald; vice-chairman, Thomas Williamson; directors—W. A. Black, R. R. Dobell, C. H. G. Short, Geo. A. Macdonald, Thomas Williamson, Chas Ritz, J. J. Page, R. J. Pinchin, J. A. McDonald, D. C. MacLachlan. D. E. Murphy was re-appointed sec'y.

Winnipeg, Man.—A conference, headed by John Patterson, of Toronto, director of the Canadian meteorological service, and attended by representatives of the Winnipeg Grain Exchange, managers of Dominion experimental farms, professors of universities and agricultural colleges and others, was held in the Grain Exchange Bldg. recently to discuss the subject of a better meteorological service for the three prairie provinces. A weather service to the Winnipeg Grain Exchange was recommended, before the opening of the market, in order to offset misleading reports at a time when weather conditions are an important factor in price. Other matters discussed were data on humidity, sunshine, wind and pressure and the effect of frost on the wheat plant during various stages of growth. When the final recommendations and plans are submitted to Mr. Patterson, it is expected that some worthwhile results will follow.

COLORADO

Denver, Colo.—W. B. Johnson has been elected a director of the Grain Exchange, filling the vacancy caused by G. B. Irwin's resignation.

Wiggins, Colo.—The Colorado Mill & Elvtr. Co. is having the cupola of its elevator covered with galvanized iron. The W. H. Cramer Const. Co. is doing the work.

Timnath, Colo.—The Moody-Warren Commercial Co. has leased its elevator at this point to the newly formed Strang Grain Co., whose headquarters are at Ft. Collins, Colo.

Ft. Collins, Colo.—Prompt action on the part of firemen prevented what might have been a disastrous fire at the Colorado Milling & Elvtr. Co.'s plant at 7 p. m., Nov. 5, when flames were seen on the roof of the building; loss was limited to \$25.

Limon, Colo.—C. M. Somerville, first manager of the old Equity Elvtr., and Mark Logan, foreman of the same plant for many years, have formed a partnership, to be known as Somerville & Logan, and have leased the old Equity Elvtr. property, reopening the same late in October. Mr. Somerville will be office manager and Mr. Logan will have charge of the buying and elevator work. The new firm will buy all kinds of grain and beans, and will grind feed, corn meal, etc.

Ft. Collins, Colo.—The Strang Grain Co., reported in the last number of the Journals as having leased the local elevator of the Moody-Warren Commercial Co., is a new company under the management of R. M. Strang, who has been with the Moody-Warren Co. for 16 years and has been in charge of the grain department since 1918. The Moody-Warren Co. is withdrawing from the grain business, continuing its farm implement and supply line, and the Strang Grain Co. will carry on a general grain and coal business along the same lines as conducted by the former company. It will do both a carload and retail business, with its main office at the Ft. Collins elevator. The Moody-Warren Co.'s elevator at Timnath, Colo., has also been leased, the two elevators having a combined capacity of 150,000 bus. Joe Meford, who has had charge of the Timnath elevator, has been put in charge of the Ft. Collins elevator.

ILLINOIS

Maunie, Ill.—The elevator operated by Wyatt Doneghue burned at 2 a. m., Nov. 5; partly insured.

Flanagan, Ill.—An addition to the Francis Sherry Elvtr. is under construction. It is being added to the west end of the present structure.

Lane, Ill.—G. R. Lane, for many years prominent in the grain trade in Central Illinois, died at his home here, Nov. 13, at the age of 70 years. A son, French Lane, survives him.

Claytonville, Ill.—The Farmers Grain Co. is erecting a 16,000-bu. frame elevator to replace the structure burned in October. It will be electrically operated and up-to-date, altho smaller than the former house.

Burlington, Ill.—The old Nicholas elevator and feed mill, occupied by Amos Hussey, burned during the night of Nov. 4. The mill was filled with small grain and feed, and a car of barley on the Illinois Central track adjacent to the mill was also burned.

Mattoon, Ill.—Grain dealers in 12 counties of this section of Illinois attended a dinner meeting, Nov. 6, at the Hotel U. S. Grant, with W. M. and W. Neil Laughlin, of Mattoon, as hosts. The general topic for discussion was "Merchandising of Foods for Hogs, Dairy and Poultry."

New Canton, Ill.—Ellis Kendrick, employed at the Heidloff Elvtr. Co.'s elevator, was seriously injured, on Nov. 5, when struck on the head by some revolving machinery. He was alone in the elevator at the time, but before he dropped to the floor unconscious he turned off the machinery. Altho the wound was serious, the doctor believed he would recover unless infection set in.

Gays, Ill.—Dudley Fuller, who has been working at an elevator here for 13 years and is familiar with the operation of all the machinery, got his hand caught in a corn sheller, on Nov. 9, and was so badly hurt that it was necessary to take him to the hospital. Altho the lacerations were deep, it was that it would not be found necessary to amputate any of the fingers or the hand.

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WAVELLS I. ILLIAN
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Kankakee, Ill.—R. H. Petty, former agent for the Kankakee Farmers Union Co-op. Ass'n, which is now out of the grain business, is manager for the new firm, Carter Grain & Feed Elvtrs., which has taken over the former company's elevators, under lease, as reported in the last number of the Journals.

CHICAGO NOTES

A Board of Trade membership sold on Nov. 17 for \$11,700, which was \$200 less than the previous sale.

Harry A. Eicke, assistant chief grain inspector for the state grain department, died Nov. 5, at the age of 44 years. He is survived by his widow and a step-son.

The Chicago Hay Co. is a new firm composed of Harry S. Button and A. Maremont, who was formerly connected with the John Devlin Hay Co., which recently retired from business.

Henry A. Rumsey is now associated with A. O. Slaughter, Anderson & Fox, having charge of their grain department. Mr. Rumsey formerly headed the 63-year-old firm of Rumsey & Co.

The Board of Trade Fellowship Club has recently issued the first number of a quarterly magazine edited by Billy Eaton in the interest of members of the Exchange, their clerks and the employees of the building.

E. V. Maltby, former general manager of the defunct Rural Grain Co., was brot back to Chicago from Seattle for trial on charges of violation of the grain futures administration act. He was released on bonds of \$2,500.

William Rooney, who has been a member of the Board of Trade representing Schwarz & Co. for nearly 40 years, has opened offices under the name of William Rooney & Son, which will handle grain, cotton and provision trades.

David D. Weiss has been expelled from membership in the Board of Trade charged with violating rules 141 and 145, the first involving fraud or dishonorable conduct, and the second conduct detrimental to the welfare of the association.

New members of the Board of Trade include the following: Roy E. Bard, Henry O. Pohlson, Wentworth P. Mackenzie, Lewis G. Salomon, John N. Block (the last two of New York City), Ward S. Perry, William V. Gathany, Henry N. Rowley and Francis G. Venables (Toronto).

Arthur H. Crain, of Midlothian, Ill., a telegrapher in the Chicago Board of Trade, has just had a 3,000-line poem, entitled "The Fall of Eve," accepted for publication. The publishing firm is said to be very enthusiastic in their praise of the work. Mr. Crane is now busy on a novel.

An investigation has been ordered by the city controller of the claim of the State of North Dakota for \$8,884 in payment of flour purchased by the city of Chicago thru the former C. B. Munday Co. As reported in the Journals last number, C. B. Munday has been indicted by the grand jury for his conduct of the C. B. Munday Co., former Chicago agent of the State Mill & Elvtr. Co., of Grand Forks, N. D.

Announcement of three meetings of the nominating com'te of the Board of Trade, to consider suggestions regarding candidates for nomination on the regular ticket, to be voted on Jan. 4, at the annual election, has been made by John A. Bunnell, chairman of the com'te. At the first meeting, held the second week of November, the com'te received three petitions suggesting Peter B. Carey, now 1st vice-pres., for pres. Mr. Carey has been a strong defender of the grain exchanges against legislative restrictions. According to custom, Siebel C. Harris, now 2nd vice-pres., would become 1st vice-pres. The petitions named Edwin T. Maynard as 2nd vice-pres., and for directors chose the following: Francis L. Schreiner, F. B. Fox, Lewis T. Sayre, Edwin J. Kuh, Jr., and Charles P. Randall. James C. Murray is being urged by his friends to serve as pres. another year. The nominating com'te must report its choices by Dec. 10, according to the rules.

William H. Sterling, veteran member of the Board of Trade, died at his home Nov. 23, after a brief illness. Mr. Sterling, who was 72 years old, was one of a dozen members of the Board of Trade who owned their seats on the exchange for 50 years or more. He was a member of the firm of Henry D. Warner & Co., and in 1889 organized the brokerage firm of Fowler & Sterling. Later he formed the business of Sterling & Hunt and in 1898 became a principal of the provisions company of W. H. Sterling & Co. At the time of his death Mr. Sterling was associated with Winthrop, Mitchell & Co., visiting their offices a few hours before he was stricken. A daughter, Miss Jessie L. Sterling, is the only immediate surviving relative. William H. Sterling, Jr., a son, died a year ago.

INDIANA

Hatfield, Ind.—On Nov. 5 fire of undetermined cause damaged the property of the Cadick Milling Co.

Uniondale, Ind.—Fire at an elevator at this point on the morning of Nov. 12 was put out, with but little damage to the elevator.

State Line, Ind.—Thieves entered the office of Victor Current's elevator, operated as the Current Grain Co., during the night of Nov. 5, and departed with a radio.

Otterbein, Ind.—We are the successors to the Farmers Elvtr. Co. and are operating under the name of the Rich Grain Co.—Rich Grain Co., by E. L. McDowell, mgr.

Pleasant Lake, Ind.—The Steuben Grain Co. (farmers company) whose business was taken over several months ago by the Farm Buro Co-op. Ass'n, is being formally dissolved.

Indianapolis, Ind.—Soya Products, Inc., incorporated; capital stock, 100 shares no par value; incorporators: E. Kozeluh, A. G. Kiesk and C. Gear; to deal in soya products and grains.

Bourbon, Ind.—The east portion of the old elevator, owned by the First State Bank, is being taken down and the west portion will be put in shape to meet the requirements of the state fire marshal.

St. Louis Crossing, Ind.—Loren Parrish has succeeded his father-in-law, Harry Nading, recently deceased, at the former Farmers Elvtr. Co.'s elevator, recently taken over by the Central States Elvtr. Corp.

Lapel, Ind.—It was reported about the middle of the month that a receiver for Shetterly Bros. elevator was being sought by the Paddock Hodge Co., holder of two notes, which, it was said, were past due.

Mt. Vernon, Ind.—C. F. Schettler, grain buyer here, has announced he will purchase corn this season for S. Zorn & Co., of Louisville, Ky., and he will receive grain at the A. Waller & Co. elevator.—W. B. C.

Lakeville, Ind.—Clem L. Schafer, grain dealer, has filed a petition in voluntary bankruptcy, listing liabilities of \$46,084 and assets of \$5,501. Mr. Schafer was formerly in the elevator firm of Wolff & Schafer.

Bluffton, Ind.—Grain dealers of this vicinity held a meeting in the assembly room of the Old-First National Bank in this city, on the evening of Nov. 14, with 32 in attendance. Frederick K. Sale, sec'y of the Indiana Grain Dealers Ass'n and also of the National Hay Ass'n, was present. General conditions in the grain business were discussed.

Vincennes, Ind.—Concrete for the foundation and for the bins of the new Baltic Elvtr. was poured last week and construction of the superstructure is to be rushed so that the elevator may receive corn this month.

Graham (Washington p. o.), Ind.—Graham Farms, Leo Hoefling general manager, have erected a feed grinding and mixing plant at the Graham Elvtr. The building is 15 x 45 feet and will be equipped with new machinery, including molasses mixing machine.

Evansville, Ind.—John K. Jennings, head of the Diamond Feed Mills of this city, has been appointed by Mayor Frank W. Griesse as head of the relief com'te to raise \$100,000 to take care of the unemployed and their families during the coming winter.—W. B. C.

Amboy, Ind.—The elevator owned by the Central States Elvtr. Co. of Indiana and managed by Claude Auckman burned Nov. 8; loss, \$20,000, including 3,000 bus. of soy beans, 1,500 bus. of corn and 120,000 pounds of blue grass seed. The scalehouse and office were saved.

Whitestown, Ind.—After managing the Whitestown Elvtr. for 14 years, Robert S. Kern has retired and L. W. Kirtley has acquired all of the stock in the corporation and will manage it from the office of the Lebanon Grain Co., and Ben Herr will divide his time between the two places.

Shelbyville, Ind.—Six Shelby County grain elevators, located at Shelbyville, Morristown, Fountaintown, Rays Crossing, Manilla and Fairland, formerly operated on a co-operative basis under the Central States Grain Corp., have been transferred to the National Grain Corp., headquarters Chicago.

Greens Fork, Ind.—The fire that destroyed Eugene Lewis' elevator early this month (reported in the last number of the Journals) is believed to have been of incendiary origin. The west door of the elevator was found tied open at the time of the fire, which started in the southwest corner. Coal had been stolen from the elevator on several occasions.

St. Louis Crossing, Ind.—Harry Nading, for many years connected with the old Farmers Elvtr. Co.'s elevator which recently became the property of the Central States Elvtr. Corp. in which he still held interest, died at his home here following a short illness from pneumonia, on Nov. 9, at the age of 58 years. He was one of the outstanding business men of this community. His widow and two daughters survive him.

Geneva, Ind.—The Geneva Milling & Grain Co. has purchased the grain elevator of the Geneva Elvtr. Co., formerly owned by N. B. Shepherd & Son. The new owners will carry on the business in the Shepherd Bldg. under the old name of the Geneva Elvtr. Co. Ferd Steiner, of Berne, has been secured as manager of the elevator. He has been employed for a number of years in the Berne Grain & Hay Co.'s elevator. Earl and Clarence Shepherd have kept possession of the coal docks and will continue in the coal and hay business, using the same office as formerly. N. B. Shepherd, recently deceased, part owner and manager of the Geneva Elvtr. Co., started to work in the elevator in 1878, and when the house was sold to the Berne Grain & Hay Co. he became a member of that company and manager of the Geneva elevator. Several years later he bot the local elevator and had operated it until his death a few months ago under the firm name of N. B. Shepherd & Son.

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The latest new member of the Indiana Grain Dealers Ass'n is the Farmers Grain Co., of Carlos, Ind., C. W. Stults manager. So far 51 new members to the ass'n have been secured during the fiscal year now nearing its close.

Stewart (Pence p. o.), Ind.—Quick action by a Big Four train crew and the fire companies of several nearby towns saved the Miller Elvtr. Co.'s elevator at this point from destruction by fire, on Nov. 10, which started in a large cob storage bin.

IOWA

Marcus, Ia.—The Farmers Elvtr. Co. recently purchased a feed mixer.

Orient, Ia.—The safe of Johnson & Tuttle's elvtr. was blown open at 3:30 a. m., Nov. 16, and \$100 stolen.

Griswold, Ia.—Fred Krisinger, operating the Griswold Mill, is adding a cereal mill to his equipment.

Ft. Dodge, Ia.—The annual meeting of the Farmers Grain Dealers Ass'n of Iowa will be held at the Warden hotel Jan. 26-28.

Onawa, Ia.—John R. Murphy, 87, father of Mark Murphy, mgr. of the local I. C. Elevator Co., passed away at his home here Nov. 16.

Miles, Ia.—J. L. Franks & Co. is installing an overhead traveling electric truck dump, also replacing its feed mixer with a molasses mixer.

Albion, Ia.—A new \$3,000 elevator and a corn crib on the farm of C. E. Arney, 3½ miles west of this point, were damaged by fire recently; loss, including grain, about \$7,500.

Sioux City, Ia.—John M. Anderson, with the Wertz Seed Co. in charge of the company's commercial feed business for the last four years, has been made vice-pres. in charge of sales for Worthmor Feed Mills, Inc.

Burlington, Ia.—Claude Hand, employed at the Trans-Mississippi Grain Co.'s elevator, received a painful injury on Nov. 18, when his hand caught in a cable, as a rod he was using in twisting a wire slipped. No bones were broken but the hand was badly torn.

Aurelia, Ia.—Mr. Fraser died Oct. 27, death being due to apoplexy. For the present I expect to continue the business as he wished. Mr. Fraser had been in the grain business in Aurelia for 25 years, and had a wide acquaintance.—Mrs. Fae N. Fraser, administratrix, A. Fraser.

Estherville, Ia.—George Anderson, Edward Stockdale and B. H. Brackett have organized a new company to succeed the B. B. Anderson & Sons Co., which has dissolved as the elder Mr. Anderson is retiring. A wholesale and retail grain, feed and coal business will be conducted by the new company.

Mason City, Ia.—The Northwestern Distributing Co., Inc., feed manufacturers, recently leased the elevator formerly operated by the Independent Grain & Fuel Co. and will carry a supply of corn, oats and wheat this winter. The company has also erected an addition to its warehouse, 50 x 50 feet, giving it a total floor space of about 15,000 square feet.

Zealing, Ia.—E. F. Froning, owner of the Froning Grain & Lbr. Co., at Liscomb, Ia., has bot the elevator at Zealing owned by B. F. Vorhes. Mr. Froning himself will manage this elevator, his son Merle will have charge of the Liscomb business and his son-in-law, Errol Johnson, will continue the management of the elevator at Union, also owned by the Froning Co.

KANSAS

Deerfield, Kan.—Deerfield Eltr. Co. has installed a truck dump and car loader.

Brainard, Kan.—Windstorm slightly damaged the elevator of A. A. Hinkson recently.

Osage City, Kan.—Lighting slightly damaged the elevator of Carl Teichgraeber on Nov. 13.

McDonald, Kan.—The Urbom Grain Co. has erected a large double corn crib at the rear of its warehouse.

Ford, Kan.—C. S. Lucas, of Satanta, has bot an interest in the Midwest Grain Co. and will become manager.

Carbondale, Kan.—A. Finlay, Jr., re-opened the elevator Nov. 1, for buying and selling grain, feed and livestock.

Mound Valley, Kan.—The Farmers Union has purchased a box car which will be located near its elevator and used for storing feed.

Wichita, Kan.—Among new members of the Board of Trade is Franklin C. Jackman, sec'y of the Bowersock Milling Co., of Lawrence, Kan.

Liberal, Kan.—Charles Park, of Norton, has taken the management of the Goffe-Carkener Grain Co. in the Boles Bldg., this city, succeeding Charles Lyon.

Hutchinson, Kan.—The Board of Trade is still considering plans for a new building. C. D. Jennings, of the C. D. Jennings Grain Co., is head of the building com'te.

Sharon Springs, Kan.—The new 5,000-bu. elevator, reported in the Oct. 28 Journals as being contemplated by the Geo. E. Gano Grain Co., is now under construction.

Wheeler, Kan.—Charles E. Graves, who has managed the Wheeler Equity Elvtr. for about five years past, has leased the elevator and will buy grain on his own account hereafter.

Valley Falls, Kan.—The old water power mill is again grinding wheat after years of idleness. Joe Piazek, who built and equipped the mill over 50 years ago, is in charge of it.

Hutchinson, Kan.—G. Douglas, for a number of years assistant inspector at the state grain inspection office in this city, is now in the Government Hospital at Fort Lyons, Colo., taking tuberculosis treatment.

Peabody, Kan.—The Peabody Flour Mills, which have been idle a long time, have been cleaned, repaired and put in first class condition and are now being operated by P. G. Spencer and his son, formerly of Caldwell.

Liberal, Kan.—The 250,000-bu. concrete elevator that has been under construction for the Light Grain & Milling Co. was completed and turned over to the owners by the McDowell Const. Co. the first week of November.

Axtell, Kan.—D. C. O'Neil, pioneer resident of Axtell, has sold the elevator and grain business he established nearly 50 years ago, to W. B. Gallagher, who operates a feed and seed business. Mr. O'Neil has an elevator and grain business at Beattie and at Summit, near here.

Cherryvale, Kan.—A small blaze was discovered in the sack cleaning building of the N. Sauer Milling Co., at 11 p. m., Nov. 13, by the night crew, who promptly extinguished it before it had a chance to gain any headway. The fire was believed to have been the work of incendiaries, as some oily waste used in starting the fire, was found.

Kinsley, Kan.—New flour and feed machinery has been installed in the plant of the former Midwest Producers Ass'n, recently purchased by the newly formed Edwards County Mill & Produce Co., as reported in the last number of the Journals. C. J. De Witt is general manager of the new company.

KENTUCKY

Wickliffe, Ky.—H. Peal recently installed a new hammer mill in his feed mill.

Calvert City, Ky.—The Norman Milling Co. recently installed a portable feed grinder.

MARYLAND

BALTIMORE LETTER

Baltimore, Md.—The assessment on memberships in the Chamber of Commerce for 1932 was fixed at \$30 by the board of directors at the meeting held Nov. 10.

Baltimore, Md.—Charles M. Struven, senior member of the firm of Charles M. Struven & Co., large distributors of fish scrap and fish meal, died unexpectedly at his home in this city, from a heart attack, on Nov. 6, at the age of 56 years. Being a pioneer in the fish meal trade of this country, Mr. Struven was widely known in the feed trade. He is survived by his widow, a daughter and two sons, one of whom, Charles M., Jr., was associated with his father in the business.

Baltimore, Md.—At the December monthly meeting of the board of directors of the Chamber of Commerce a nominating com'te of five will be elected, whose duty it shall be to select from the membership of the chamber the names of five members to serve as directors for a three-year-term, beginning late in January. The board is composed of 15 members, five of whom retire annually.—R. C. N.

MICHIGAN

Detroit, Mich.—Fire caused by a choked elevator leg slightly damaged the plant of the Commercial Milling Co. on Nov. 3.

Grass Lake, Mich.—The Grass Lake Farmers Elvtr. Co. has recently installed an electromagnetic separator to catch tramp iron.

Marshall, Mich.—The Marshall Milling Co. is placing a new breakfast food on the market, made from the heart of the wheat kernel.

Hartford, Mich.—The Hartford Co-op. Ass'n has placed its order for an electromagnetic separator to be used in connection with its feed mill.

Carsonville, Mich.—H. Ruttle Sons are installing an electromagnetic separator ahead of their feed mill to eliminate the tramp iron fire hazard.

Hudsonville, Mich.—The Farmers Elvtr. Co. is installing a "reliable" electromagnetic separator ahead of its feed mill to take iron out of the feed.

Columbiaville, Mich.—Alex Urbach expects to start a feed mill shortly. He has purchased a dreadnau mill, 20-h.p., fully-enclosed pipe-ventilated motor and a built-in electromagnetic separator.

Detroit, Mich.—John L. Dexter & Co., feed and flour brokers, will be dissolved, it is reported, following the recent death of the company's president, John L. Dexter, reported in the Oct. 28 Journals.

Fremont, Mich.—The Fremont Co-op. Ass'n is rewiring its motor circuits, placing all wiring in conduit, and is installing an electromagnetic separator to prevent tramp iron from getting into the feed mill.

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WHEAT-CORN-OATS-KAFIR

OGREN GRAIN CO.

Wichita, Kansas

Grain Merchants

Lawrence, Mich.—John Wassman, who operates the local flour mill, has ordered an electromagnetic separator, to eliminate the tramp iron fire and accident hazard.

Yale, Mich.—Peter Doelle, who until about 10 years ago operated an elevator at Yale under his own name, died at the home of his sister, Mrs. Emerson Cooper, in San Diego, Cal., Oct. 23, after a lingering illness. In 1921 Mr. Doelle went to California to live with his sister.

Bay City, Mich.—The new plant of the Farm Bureau Service, Inc., an elevator and feed mill, located on the west side of town, has just been opened for business. The plant is very complete thruout, being equipped with fully-enclosed motors and an electromagnetic separator, and ball bearings on the counter shaft.

Dutton, Mich.—Fred Warners has erected a new feed mill, incorporating with it a sweet feed molasses process. Plant is equipped with a hammer mill with a 50-h.p. direct-connected motor and a built-in electromagnetic separator. Three fully-enclosed Fairbanks-Morse Motors are used to operate mixers and elevator legs.

Battle Creek, Mich.—A. J. Arnold, after 28 years in the feed mill business here, has retired, having dismantled and sold his machinery. For the last 15 years, Mr. Arnold's brother, Charles W., has been one of the crew of three which operated the mill. Mr. Arnold is 70 years of age. His retirement leaves only one feed mill in this city, that of the Farm Buro.

MINNESOTA

Lakefield, Minn.—Diedrichs Mills are installing an automatic magnetic separator.

Ogilvie, Minn.—Otto Block has opened a feed grinding mill in the building back of the oil station.

Appleton, Minn.—The W. J. Jennison Co. suffered slight damage to its electrical equipment on Nov. 7.

Hawley, Minn.—The elevator on the Chris Gruhl farm, five miles northwest of this point, burned late in October.

Bagley, Minn.—Fire originating in the cupola burned the roof and cupola and tops of bins in the plant of the Bagley Co-op. Co. Nov. 15.

Nassau, Minn.—The Nassau Farmers Elvtr. Co.'s elevator burned during the night of Nov. 9; loss, \$15,000; 9,000 bus. of grain was destroyed.

Foley, Minn.—Albert Cairns, for some years identified with the Red Lakes Falls Milling Co., of Crookston, Minn., and for the past several years manager of the Foley Mill & Elvtr. Co., who recently resigned from that position to go into business for himself, has purchased a warehouse building in Foley and will install a feed mill and will job flour and feed.

Granite Falls, Minn.—It has been reported that Swen Swenson, former manager of the Farmers Elvtr. & Mill Co., was recently arrested for selling coal on weights taken on the scale of his former employer which had been condemned for several months. The load was 100 pounds short. He was fined \$50 and costs. The Farmers Elvtr. & Mill Co. has been closed for several months.

Red Wing, Minn.—The Red Wing Milling Co. sustained a slight loss recently by fire in its mill elevator. The fire started over a screenings bin. Altho the cause is not definitely known, it may have originated from an extension cord used to check the amount of stock in the bin. Four sprinkler heads opened, which controlled the fire until firemen arrived and finished putting it out with chemical hose. Without the sprinkler equipment the elevator, with about 100,000 bus. of wheat, would undoubtedly have burned.

MINNEAPOLIS LETTER

An office was opened here recently by the Stratton Grain Co., of Chicago and Milwaukee, with William G. Kellogg as manager, a general merchandising and commission business, also options, being carried on. Some of the other offices maintained by the company are located at New York, St. Joseph, Portland (Me.), and Depot Harbor, Ont.

New members of the Chamber of Commerce include Guy A. Thomas, of the Commander-Larabee Corp., who purchased the membership of C. E. Thayer.

The Mutual Feed & Grain Co., J. F. Cramp, Jr., manager, announces the opening of a jobbing and brokerage office in the Corn Exchange Bldg., handling grain, feed and flour.

The Minneapolis Grain Shippers Ass'n held its regular monthly meeting Nov. 3, at which O. F. Bast, manager of the Union Elvtr. Co., reported on the annual convention of the Grain Dealers National Ass'n, held recently at Houston, Tex., and R. A. Stevenson, of the School of Business, University of Minnesota, spoke on what is being done to help national unemployment.

George E. Gee, one of the pioneer members of the Chamber of Commerce, prominent in the grain trade here for years as head of the George E. Gee Grain Co., died at his home on Lake Minnetonka, Nov. 17, at the age of 74 years. Mr. Gee, who retired a few years ago, entered the grain business at Duluth in 1885, coming to Minneapolis soon thereafter. His wife and two sons survive him.

Frank M. Norton, 71 years of age, pioneer grain dealer and a native of Minnesota, died at his home in this city, on Nov. 4. He entered the grain business as representative of the H. Poehler Grain Co., of Minneapolis, at Glencoe, 45 years ago, 15 years later being transferred to this city and placed in charge of rural elevators and the exchange terminal elevator at St. Louis Park. Mr. Norton is survived by his widow and one son, George M. Norton.

Charles T. Olson and E. F. Morris have organized the Feed Mrs. Supply Co., with headquarters in the Millers & Traders Bldg., to do a brokerage business, handling raw materials and concentrates for feed manufacturers. Mr. Olson was formerly with the Commander-Larabee Corp. as export manager, and Mr. Morris has been connected with the Armour Grain Co. and Chapin & Co., of Chicago, and with the Washburn-Crosby Co., Inc., as manager of the mixed feed department, and quite recently with the Brooks Milling Co., also of this city.

Elevator "M" was re-opened as a public warehouse on Nov. 12, a new license having been granted by the Railroad & Warehouse Commission, and bonds totaling \$195,000, covering the elevator's 1,300,000-bu. capacity have been approved. Elevator "M" was formerly owned by the Farmers Union Terminal Ass'n and was taken over by the Farmers National Grain Corp., which has operated it for the past three months as a private terminal. The elevator has been the center of a wheat grading controversy for three months between State Senator Mullin and the Railroad & Warehouse Commission, as reported from time to time in the Journals. As of Nov. 10, when the new license was granted, the elevator contained 969,909 bus. of No. 1 dark northern wheat, according to the records of the commission.

MISSOURI

Chaffee, Mo.—The Chaffee Mill & Grain Co., managed by J. F. Diebold, is in operation again after a prolonged shutdown.

Kansas City, Mo.—Offices of the Vander-slice-Lynds Co. and Henry Lichtig & Co. have recently been moved from the ninth to the third floor of the Board of Trade Bldg.

Webb City, Mo.—Work on the new Ball & Gunning mill, to replace the plant that burned some time ago, was started during the second week of November and the plant is expected to be ready for occupancy in six weeks or two months' time. The plant will consist of a two-story mill proper, of concrete and steel construction, new warehouse and brick offices. Capacity of the mill will be 1,000 barrels of flour and 200 barrels of cornmeal per day. The company is doing the building itself, no contract having been let. The machinery contract has been awarded to the General Mill Equipment Co., and the equipment will include complete feed grinding and mixing machinery, a 3-stand cornmeal unit, automatic weighers and packers, new electric motors of the enclosed type and V-belt drives.

St. Joseph, Mo.—We have closed our St. Joseph office.—Goffe & Carkener, Inc.

Nevada, Mo.—J. K. Hill & Son have sold their elevator and warehouse property to the Denman Flour & Feed Co.

Riverdale (r. d. from Ozark), Mo.—The Riverdale Milling Co. contemplates erection of a new mill especially designed for cornmeal milling, altho flour will also be manufactured. The site will be that of the former plant that was burned. A hammer mill for corn cob crushing will be a feature.

MONTANA

Baker, Mont.—Mail addressed to the Equity Co-op. Ass'n is returned marked "Moved, left no address."

Cascade, Mont.—W. A. Flood, who has been with the Cascade Milling & Elvtr. Co. for the past 14 years in the capacity of bookkeeper, has been chosen by the board of directors to fill the vacancy caused by the death of W. C. Boeke, general manager, reported in the last number of the Journals.

NEBRASKA

Auburn, Neb.—A new corn sheller has been installed at the elevator of the E. H. Ely Grain Co.

Omaha, Neb.—The Nebraska Consolidated Mills Co. sustained damage to its electrical equipment on Nov. 10.

Holbrook, Neb.—The Rankin Bros. elevator recently installed a new air dump and a 12-foot grate and can now handle trucks of any size.

Glenwood, Neb.—The Farmers Elvtr. Co.'s elevator is being improved by new foundations and footings and the widening of the driveway.

Ashland, Neb.—The Kuhl Grain, Flour & Feed Co. has been incorporated and is now known as the Kuhl-Reece Co.—Kuhl-Reece Co., by E. M. Kuhl.

Bee, Neb.—Burglars broke into four business houses during the night of Nov. 10, including the Bee Elvtr. Co. (farmers), where they tampered with the safe but failed to open it.—A. T.

Campbell, Neb.—The Paul B. Adams Milling Co. has leased the Koch Mill & Elvtr. for three years, and intends to run the plant 24 hours a day. A full and complete line of the company's own commercial feeds will be handled.

Phillips, Neb.—J. C. Neuhalfen's overalls became caught in the machinery at the Farmers Elvtr. Co.'s elevator, where he is employed, but fortunately they were torn completely from his body, saving him from possible death.

Nebraska City, Neb.—What was thought to be the oldest mill in Nebraska, known as Catron's Mill, erected previous to 1855, has been torn down. It had not been operated for five years and had been dismantled several years ago.

Colon, Neb.—The Nye-Jenks Grain Co.'s elevator at this point, including the lumber and coal yards, has been purchased by the Farmers Union Elvtr. Co. for \$30,000. The latter company will now use one of its elevators for a store house.

Battle Creek, Neb.—Lawrence F. Walz has leased the Battle Creek Mills from the receiver of the Battle Creek Valley Bank. The property was recently transferred to the bank by Geo. Scheerger, owner and operator for many years. A complete line of poultry and hog feeds will be manufactured.

Omaha, Neb.—New officers of the Grain Exchange are as follows: Pres. J. A. Linderholm; vice-pres., W. T. Burns; vice-pres., E. A. Lucke; treas., F. C. Bell. Members of the board of directors (other than the officers) are: J. H. Wright, J. H. Weaver, J. L. Welsh, C. D. Sturtevant and J. T. Buchanan.

NEW ENGLAND

Livermore Falls, Me.—H. A. Morrison, who has been in business here for 25 years, has sold his grain mill to L. M. Pike, of North Livermore.

NEW YORK

Lockport, N. Y.—Grigg Bros. Milling Co., whose plant includes an elevator, has been dissolved and will be merged with the newer corporation known as the Grigg Shares Corp.

BUFFALO LETTER

The wife of Howard Kellogg, pres. of Spencer Kellogg & Sons, Inc., linseed crushers, died Nov. 4, from injuries resulting from being thrown from her horse the day before, while she and her husband and daughter were in a hunting party. She was 47 years of age.

Hiram C. Harrison, for many years sec'y and manager of the Exchange Elvtr. Co., and well known to the grain trade of this market, died at his home in a suburb of Buffalo, on Nov. 5, at the age of 70 years. In 1903, together with the late J. M. Jenks, of the Nye & Jenks Grain Co., he organized the Buffalo Grain Co., which he operated for a number of years.

Dr. G. Hunter Bartlett, retired grain dealer, died Nov. 8, at the age of 75 years. For many years he was manager of the Evans grain elevators and also a director of the Western Elevating Co. Mr. Bartlett was considered an authority on the history of Buffalo, and was a member of the board of managers of the Buffalo Historical Society for years. He is survived by his widow, a son and a daughter.

The North American Trading & Import Co. is erecting tanks which will hold 3,000,000 gals. of molasses; Molasses Products Co. is putting up 1,000,000 gal. of storage space for this commodity; National Molasses Co. is putting up 750,000 gals. The barge canal makes possible a low rate, all-water haul for molasses from Cuba. Other interests are expected to enter the city and further increase the space for molasses storage.

The following notice has been sent to members of the Corn Exchange by its sec'y, Fred E. Pond: "Rule 11, c.i.f. and grain in store, sec. 2—lake grain sold in store shall be considered accepted by the buyer, unless he gives notice to seller by noon of second day succeeding day of sale of the rejection of same for cause—has been amended to read: 'Lake grain sold in store shall be considered accepted by buyer, unless he gives notice to seller by noon of the second business day after delivery of proper documents of the rejection of same for cause.'"

NEW YORK CITY LETTER

New York, N. Y.—A Produce Exchange associate membership sold for \$1,000 during the second week of November, which was higher than the previous price.

New members of the Produce Exchange are as follows: M. A. Barry, H. J. W. Phillips, D. F. Sparacino and W. K. Clarkson, the last named being an associate member.

B. B. Morgan is now connected with the Oyster Shell Products Corp., representing that company in eastern territory. He was formerly with the Gulf Crushing Co.

The Stratton Grain Co., of Chicago and Milwaukee, opened an office in this city recently, in charge of Robert G. Brandt. A general merchandising and commission business is being done. The company has offices also at Minneapolis, St. Joseph, Portland (Me.), Depot Harbor, Ont., and other cities.

NORTH DAKOTA

Devils Lake, N. D.—An office has been opened in this city by the Cargill Elvtr. Co., of Minneapolis.

Mott, N. D.—A new bulk oil and gas station is being installed by the Occident Elvtr. Co. next to the elevator. E. E. Bope will manage the new department as well as continue to have charge of the elevator.

Fargo, N. D.—A meeting of retail coal dealers was held in this city, at the Gardner Hotel, Nov. 10, being presided over by C. C. Snyder. The principal speaker was Wes Keller, sec'y of the Northwestern Retail Coal Dealers Ass'n. The open discussion which followed the formal talks was interesting and educational. About 30 were present.

Williston, N. D.—The City Elvtr., owned and operated by Alfred Alfson, burned Nov. 12; loss, \$10,000; insurance (on building) \$6,500; the elevator contained about 4,500 bus. of grain, mostly wheat, much of which could be salvaged.

Spring Brook, N. D.—M. J. Casey, former manager of the Farmers Elvtr. Co.'s elevator, which burned in July, and who was recently arrested on forgery charges in connection with the management of the elevator, as reported in the Oct. 28 Journals, appeared for trial, Nov. 9, in Judge Lowe's Court at Minot, N. D. He pleaded guilty to second degree forgery and was given an undetermined term of sentence from one to three years.

OHIO

Lima, O.—The Ackerman Co. has bot property on which it will erect a large storage building in connection with the elevator.

Dayton, O.—Matusoff Feed Co., incorporated; capital stock, \$25,000; incorporators: Samuel L. Finn, Israel Greenberg, Morris Matusoff.

Oakwood, O.—Hill & Hill have purchased the Whitney Elvtr. from Brady Bros., of Payne, O., who bot it a few months ago from the Chatterton interests.

Greenville, O.—The City Mills is making improvements to its plant costing about \$20,000, including an up-to-date warehouse and an automatic cereal packing machine.

St. Paris, O.—The St. Paris Milling Co., owned by J. B. Tannehill and son, E. O. Tannehill, manufacturers of flour and feed, will rebuild at once the plant partially destroyed by fire on Oct. 30.

Bryan, O.—Repair work was rushed on the Farmers Co-op. Grain & Supply Co.'s elevator, partially destroyed by fire late in Oct. as reported in the last number of the Journals, in order to resume business.

Shelby, O.—The Geasel Milling Co., of McConnelsville, has purchased the 125-barrel flour mill at this place. The mill was built before the late war but was never operated. It is expected to have it in operation by next April.

Gettysburg, O.—The Equity Exchange Co.'s elevator was entered by thieves during the night of Nov. 5, and altho no money was taken the night prowlers took the contents of a small office safe, including the firm's account book and valuable papers. The safe was unlocked and no money is left in it nights. Entrance was gained to the office by prying open a front door.

Toledo, O.—The Ohio Supreme Court recently upheld the injunction granted by the lower courts restraining the operation of the Toledo Seed & Oil Co.'s plant in a manner which permits dust from castor oil beans to escape. Suit asking for the injunction was brot by Erva Nick, who was awarded \$1,600 damage. Witnesses said that dust from the plant caused asthma. An official of the company is reported to have said that the company would not continue the castor bean department of the business in Toledo.

Cincinnati, O.—The Early & Daniel Co.'s soy bean plant burned early in the morning of Nov. 17; loss, \$100,000; covered by insurance; the plant contained 2,500,000 pounds of meal and 1,500,000 pounds of beans. The structure, 125 feet long and 75 feet wide, was an old distillery elevator and was covered with corrugated iron, making the fire harder to fight. Adjoining the building are 10 tanks containing 20,000 gals. of soy bean oil, which is inflammable, and firemen kept streams of water playing on the tanks to prevent their destruction. If it is found that water leaked into the tanks the oil may prove to be a loss also. The plant had been working a double shift, and the fire throws 15 men out of employment.

OKLAHOMA

Forgan, Okla.—L. P. Crouch is in charge of the elevator at the Forgan Mill, which reopened recently. A new air dump has been installed at the mill, the interior painted and the office remodeled.

Bennington, Okla.—Sam Dawson has installed a feed mill which he opened for business this month.

Afton, Okla.—A. W. Rush, of Tulsa, has bot the Afton Milling Co.'s plant, formerly owned by C. W. Livingston and until last spring operated by E. O. Johnson. Mr. Rush is now operating the plant.

Enid, Okla.—N. E. Carpenter has been named general manager of the Enid office of the Farmers National Grain Corp., and takes over the management in a supervisory capacity of the terminal elevator here, erected by the Oklahoma Wheat Pool Elvtr. Corp., and 194 country elevators operated thruout western Oklahoma and the Texas Panhandle.

Cashion, Okla.—B. B. Hall, manager of the Farmers Exchange Elvtr. Co.'s elevator, was found dead at the elevator, Nov. 14, with a bullet wound in his temple. The acting coroner pronounced it suicide. Irregularities are said to have been found in the books. Hall, who was 47 years old, is survived by his widow, six children and a stepchild.

Corn, Okla.—A 24 x 24-foot addition is being erected to the west end of the flour mill building, to be used as a wareroom and office. Remodeling of the building has been going on for a number of weeks, bins having a capacity of several thousand bus. having been built and new machinery ordered which will increase the output 50 per cent. The mill has been operating day and night for several months.

Wagoner, Okla.—Ernest Gaddis, an employee of the Gilbert Grain Co. for several years, died Oct. 25, in a local hospital, from injuries sustained two days before when he went into the grain pit to oil the machinery, and either slipped or was careless in getting too near a drive shaft. His leather jacket caught on a projecting bolt of the shaft and wound around the shaft, swinging his body around many times. One foot was torn loose at the ankle and the other one so badly mutilated it was necessary to amputate it, two ribs were torn loose from the spine and one wrist was broken. He was 32 years old and married.

PACIFIC NORTHWEST

Everett, Wash.—The Globe Feed Mills recently installed new machinery for the mixing of poultry and dairy feeds.

Milton, Ore.—Bruce Shangle, manager of the Farmers Brokerage Co. and of the Milton Grain Growers, will have charge of the 80,000-bu. elevator erected at Milton this summer for the Farmers National Warehouse Corp.

Freewater, Ore.—The Inland Grain Co., John Barnes and H. S. Murray proprietors, has moved to its new store building on Depot St., and its former location will be occupied by H. M. Saulsberry, who, with George H. Bryant, recently started a new company, as reported in the Oct. 14 Journals.

Portland, Ore.—D. J. Collins has been appointed manager of the Portland operations of Albers Bros. Milling Co., succeeding William Albers, who retired recently, as mentioned in the Journals last number. Mr. Collins has occupied the positions of salesman, Bellingham mill operator, Tacoma branch manager, director and vice-pres. in charge of sales, with headquarters in Seattle, with the Albers Bros. Milling Co.

PENNSYLVANIA

Harrisburg, Pa.—The feed and flour plant of Hoffer & Garman will be abandoned, it is reported, that firm having merged with the E. W. Custer Flour Mills Co., of Mechanicsburg, Pa., whose plant at that point will continue production.

Pittsburgh, Pa.—The firm of Heck & Co. was recently formed by three prominent hay men of this market, J. A. A. Geldel, Alfred Lawton, Jr., and D. V. Heck. Mr. Geldel is an experienced traffic man, Mr. Lawton was a partner of Hardman & Lawton (now liquidating) for the past three years, and Mr. Heck was a member of Hardman & Heck in former years.

Goodville, Pa.—Aaron H. Weaver, whose grist mill near this town burned Oct. 30, contemplates rebuilding but is undecided when the work will be started.

Mechanicsburg, Pa.—The E. W. Custer Flour Mills Co., of this city, and Hoffer & Garman, feed and flour, of Harrisburg, have been merged; the plant of the former will continue to manufacture the company's products, and the Harrisburg plant will be discontinued.

SOUTH DAKOTA

Hudson, S. D.—Ole Iverson's old elevator has been sold to Charles Groth, farmer, who has had it moved to his farm.

Dell Rapids, S. D.—The Farmers Grain Co.'s elevator has been sold under mortgage foreclosure proceedings to the Commercial Service Corp., as trustee.

Platte, S. D.—The state banking department has bot the equipment and contents of the Charles Mix County Milling Co.'s plant, which was sold recently by the sheriff. The plant includes a 30,000-bu. elevator.

SOUTHEAST

Booneville, Miss.—A. F. Simmons and T. E. Gordon, heading a feed company, contemplate the construction of a feed mill at this point.

Cedartown, Ga.—The old grist mill, built by A. G. West soon after the Civil War, burned on Nov. 12. It was owned by the Cedartown Iron Co.

TENNESSEE

Pulaski, Tenn.—The brick warehouse of W. N. Butler & Co. was destroyed by fire on Nov. 15.

Sequatchie, Tenn.—A. E. Higginbotham, who operates a coal business, opened a feed mill this month.

Nashville, Tenn.—J. C. Patterson, member of the grain brokerage firm of Patterson Bros., died during the second week of November, after an illness of about eight weeks. Mr. Patterson, who was 60 years of age, had been connected with the grain trade of this city for more than 25 years.

TEXAS

Dallas, Tex.—W. L. Patten Co., incorporated; mills and gins.

Farwell, Tex.—A new cleaner was recently installed by the Farmers Grain Co.

Plainview, Tex.—E. Q. Perry has bot the interest of E. N. Noble in the Noble Grain Co.

Lockney, Tex.—Fire recently destroyed the T. L. Griffith Elvtr. and damaged the Floyd Elvtr.

Amarillo, Tex.—On Dec. 1 the Grain Exchange will start the testing of wheat for protein content with its recently purchased laboratory equipment.

Graham, Tex.—Chas. E. Hinson has opened a new wholesale and retail grain, feed, seed and flour business, to be known as the Charles E. Hinson Grain Co.

Harlingen, Tex.—Valley Feed Mill, incorporated; capital stock, \$10,000; incorporators: J. F. and F. R. Plangman and Charles R. Mayfield. A sweet feed mill was constructed recently, as reported in the Sept. 23 Journals.

Lubbock, Tex.—The Lubbock Grain & Feed Co., operating mills and gins, incorporated; capital stock, \$10,000; incorporators: W. W. Lamm, Mrs. Lelia D. Lamm and W. J. Blackburn. This company recently installed a corn meal milling plant.

Ennis, Tex.—The two-story brick building owned by G. Noel and brother and used by the Chapman Milling Co., of Sherman, as a warehouse, was damaged by fire at 11 p. m., Oct. 29; damage to building \$4,500; both building and stock were covered by insurance.

WISCONSIN

Cross Plains, Wis.—Bowar Bros. have installed a Dings Magnetic Separator.

Cylon, Wis.—The Cylon Elvtr. Co.'s elevator also Lester Frey's feed mill both burned recently.

Ashland, Wis.—Ashland Milling Co. will install an automatic magnetic separator in the near future.

Milford, Wis.—E. W. Hooper has installed a spout-type automatic magnetic separator to protect his feed mill.

River Falls, Wis.—Equity Co-Op. Elvtr. Co. has just installed an automatic magnetic separator ahead of its feed mill.

Kilbourn, Wis.—The Kilbourn Co-Op. Exchange is figuring on a new attrition mill to be equipped with an automatic magnetic separator.

Milwaukee, Wis.—The rate of interest for December has been determined by the finance com'te of the Grain & Stock Exchange at 5½% per annum.

Independence, Wis.—Farmers Union Grain & Stock Co. (an old, established company), incorporated; capital stock, \$6,000; incorporators: M. Skroch, M. Craul and J. Wolfe.

Forestville, Wis.—Charles Jenquardt opened his new feed grinding mill on Nov. 9, on which day he offered to grind six bags of grain free for every farmer who came to his opening.

Janesville, Wis.—Mr. Doty, of the firm of E. P. Doty, has been ill since last May and is not yet able to come to his place of business. Otto Lukas, his son-in-law, is managing the business.

Delton, Wis.—Timme Bros. will install an automatic magnetic separator on their attrition mill. The mill is used principally to grind their own feeds and they feel that it is necessary to keep their feed free from ground metal.

Sugar Bush, Wis.—The Sugar Bush Feed Mill, owned and operated for the last three years by W. H. Thurk, has been purchased by V. H. Dani, who will operate it under the name of the Sugar Bush Milling Co. Mr. Dani was formerly sales manager of the Cereal Mill Co., of Wausau, Wis., and was also in charge of the formula work for the G. E. Conkey Co., poultry feed manufacturers. He plans to make ready mixed feed and will also do custom grinding. He contemplates installing some new equipment.

WYOMING

Riverton, Wyo.—The Farmers Exchange recently completed the construction of an elevator, giving it two at this point, the other house having been purchased from the Riverton Valley Grain Exchange after the fire of last year which destroyed its elevator.

Track Scale a Feature of Kansas Elevator

A track scale for weighing outbound shipments of grain is one of the features of the 30,000 bu. studded and iron-clad elevator of D. E. Bondurant at Ness City, Kan. This is set in the side track that serves the elevator and its beam is on the workfloor, handy to the loading spout and the machinery of the plant.

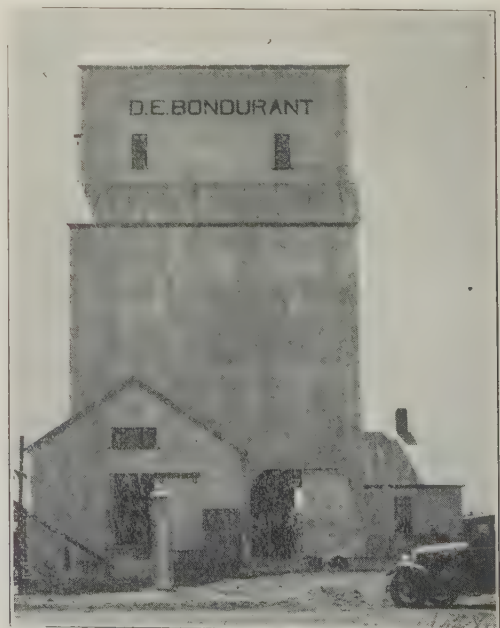
The elevator is 30x34 ft. on the ground, 41 ft. high to the plate and surmounted by a 14x34 ft. cupola, 22 ft. high. The house contains 10 bins, five of which are overhead. Attached to the elevator is a 20x24 ft. warehouse, 10 ft. high. This has a full basement. Adjoining the driveway side of the elevator is the two-room office, 12x24 ft. Nearby is a 12x20 ft. dust house 10 ft. high.

Machinery: Fast handling machinery is provided thruout the house to take care of the rush of harvest. The reinforced concrete pit is 26 ft. deep, setting the roller bearing boots at a point low enough to receive grain rapidly by gravity from the large double sink. In the driveway is a pneumatic truck lift and small grain drains thru a 6x8 ft. grate that keeps out much foreign matter. Inbound weighing is done over a 15 ton dump scale in the driveway with type registering beam.

Two legs loft the grain as rapidly as it can be dumped. Each of these has a 12 in. rubber covered belt carrying 11x7 in. Superior DP cups on 12 in. centers. Each is run by a 10 h.p. enclosed motor transmitting its power thru a universal head drive, and the head shafts turn on SKF anti-friction bearings. Each leg can elevate 3,000 bus. per hour, which gives the house lofting capacity for 6,000 bus. per hour.

Dust is largely eliminated thru two sucker cleaners at the heads of the legs, removing the dust and light chaff as the grain is lofted, discharging it into the dust house and keeping it from entering the bins. These machines are run by 3 h.p. enclosed motors to which each is direct connected.

A No. 32 Eureka Cleaner, driven by a 20 h.p. enclosed motor thru a tex-rope drive, is



B. E. Bondurants' Elevator at Ness City, Kan.

FORT WORTH

Is the Better Grain Market — Use It and Profit

Try any of these Grain and Cotton Exchange Members:

Uhlmann Grain Co.
Cash and Futures

Smith-Ingraham Grain Co.
Export and Consignments

Transit Grain & Commission Co.
Consignments, Brokerage

Rosenbaum Grain Corp.
Cash and Futures

provided for further processing of grain. Movement about the house is facilitated by an improved manlift. Chemical fire extinguishers as well as water-barrels are placed at accessible points. The house was built by Chalmers & Borton. This elevator replaces the one that burned last fall.

The Only Solution of the Railroad's Pressing Problem

The railway managements are confronted with conditions which must be squarely faced by both them and the employees. Competition of other carriers, regulation by the Interstate Commerce Commission and the depression have so reduced the earnings of the railways that many of them are threatened with bankruptcy and the credit of the entire industry is in jeopardy. The plan of making a small advance in rates and pooling the revenues derived from it, which has been offered by the commission, would, if accepted, do the railways very little good, and it is doubtful if there is any legal or practical way in which to carry it out. The only means available for solving the immediate pressing problem of the railroad industry is a reduction of wages.—*Railway Age*.

Decisions and New Complaints

Before the Interstate Commerce Commission:

No. 24833.—Globe Grain & Milling Company, Los Angeles, Calif., v. Southern Pacific. Against rate of 59 cents per 100 pounds on whole wheat, from Mosquero, N. Mex., to Los Angeles as unjust and unreasonable, and due to alleged errors in billing.

No. 24834.—The Buckeye Cotton Oil Company, Cincinnati, Ohio, v. Illinois Central Railroad. Against rates on shipments of cottonseed from points in Louisiana to Jackson, Miss., based on various combinations.

No. 21654.—Kansas Flour Mills Corporation v. Atchison, Topeka & Santa Fe Railway. Findings in former report, 168 I. C. C. 787, that the demurrage charges for the detention of cars containing grain at Hutchinson, Kan., not shown to relate to interstate shipments, affirmed on further hearing. Complaint dismissed.

No. 21655 and Related Cases.—Traffic Bureau, Aberdeen Chamber of Commerce v. Chicago, Milwaukee, St. Paul & Pacific Railroad. On further hearing, shipments of sweet clover seed, in carloads, from points in South Dakota to Chicago, Ill., and Minneapolis, Minn., on which complainant is entitled to reparation under the findings in 168 I. C. C. 611, determined.

Experiments to find a profitable commercial use for such farm by-products as straw, corn stalks, oat hulls, cotton seed hulls, etc., continue. A factory-sized laboratory will be located at Ames where experimenters from the U. S. Department of Agriculture, the Department of Commerce, and Iowa State College, will co-operate in factory-scale experiments. Chemical products are what they will hunt.

Insect Control in Grain Elevators

At the meeting of the dust explosion hazards com'te of the National Fire Protection Ass'n at Washington, D. C., Oct. 20, it was felt that paragraph (b) Section 906, Insect Control, should be eliminated from the grain elevator code, in view of the fact that the newly created com'te on fumigation hazards should have jurisdiction over this question.

The com'te asked the subcom'te to revise the present section to make it accord with the recommendations of the com'te on fumigation hazards.

Grain Carriers

Switching tariffs in the Chicago district have been suspended from Nov. 10 to Dec. 10, with a view to compromise by carriers and shippers.

Peoria, Ill.—Water again has been turned into the Hennepin Canal to release several large barges loaded with grain before navigation closes for the winter.

Chicago, Ill.—Lake grain rates have advanced a cent a bushel the past week, shippers paying 2 cents on corn to Buffalo and 2½ cents on wheat from Duluth to Buffalo.

All common carriers should be placed under the same control that regulates the railroads, according to Wm. B. Story, pres. of the Santa Fe. This includes trucks, buses, waterways and pipe lines.

New York, N. Y.—Hearings announced by trunk lines covering stop-over privileges for partial unloading or to complete loading, formerly scheduled to be held here Nov. 17, have been postponed to Dec. 15.

Buffalo, N. Y.—Tariffs, effective Dec. 3, name rates on blackstrap molasses in tank cars to this point of 22 cents from New York, 23 cents from Philadelphia, and 23 cents from Baltimore.

London, Eng.—The master of the Greek steamship *Elissavet V* was fined \$250 each on three charges of carrying grain in between decks, not providing sufficient shifting boards and not carrying part of the cargo in bags.

London, Eng.—The master of the Italian steamer *Dignitas* was fined \$600 for carrying grain in bulk between decks, for carrying grain in No. 1 hold of which one-fourth should have been in bags, for not providing bulkheads longitudinally in the hold, and for loading too deep.

Government regulation broke down in the emergency of the war and plunged the railways into government operation. It has broken down again in the emergency of the present depression. Probably the real question with which the nation is confronted is—more railroad freedom, or government ownership? The answer will be the latter unless railway regulation is much less influenced in future than it has been during the last decade by government ownership views and the poisonous and stupefying political atmosphere of Washington.—*Railway Age*.

The captain of one of the two boats that carried grain from Port Churchill thru Hudson's Bay states that the earliest date on which a vessel could pass thru the straits was Aug. 1 to 15 and a late date for the close of commercial navigation would be Oct. 15. The owners of both vessels have expressed a willingness to return next year for another cargo. The brief shipping season of two months indicates the necessity of large storage space to keep the railroad in operation hauling grain from Oct. 15 to Aug. 1.

Chicago, Ill.—The joint hearings here by Examiners Mackley and Hall of the Interstate Commerce Commission were adjourned Nov. 13 until some time in January. These hearings covered I. and S. 3634, grain and related articles from Kansas City, Mo., etc., to East Fort Madison, Ill., docket 15037, Southwestern Millers' League and others against the Santa Fe and others (further hearing); docket 24676, Minneapolis Traffic Association and others against Ann Arbor and others, and docket 24725, Omaha Grain Exchange against the Ann Arbor and others. It is expected that others concerned will join in the complaints.

Kansas City, Mo.—Effective Dec. 2 the C., B. & Q. R. R. will allow transit at Kansas City on grain from stations in Nebraska or Kansas on the Burlington, Rock Island, Katy or Frisco Railroads when the transit destination is a station in Idaho, Montana, Oregon, Washington, or British Columbia (via Billings, Mont.) to which joint thru rates are published in trans-continental freight bureau tariffs. When the rate from point of origin to Kansas City is 13 cents per cwt. or less, no charge will be made for transit. When the rate to Kansas City exceeds 13 cents the maximum absorption of inbound rate will be 13 cents. No switching charges at Kansas City will be absorbed.

Meeting National Industrial Traffic League

The National Industrial Traffic League held its 25th annual meeting at Chicago Nov. 18 and 19 with about 300 members present.

F. M. RENSHAW, chairman of the diversion and reconsignment com'te, reported that the carriers had submitted a new set of rules ignoring the recommendations of the League and inserting objectionable clauses. The meeting voted to adopt the com'te's recommendations to stand by the League's original draft, but adopted a minor change made by the railroads in rule 1 which will read as follows:

Transfers and waybills covering a car diverted or reconsigned under these rules also freight bills where the reconsignment charge is to be collected from the consignee, should bear separate notation stating where and when the diversion or reconsignment was effected, and what charges, if any were assessed.

The whole matter, however, will have to go back to the carriers. As a matter of information the com'te called the members' attention to an amendment to the diversion and reconsignment rules which was published and took effect on Oct. 15. Prior to that date, the grain transit tariffs of the carriers contained a rule covering the reconsignment of grain and grain products from elevators, mills and warehouses, which reads as follows:

This is not intended to prevent the application of the same thru rate, reshipping rate or proportional rates, on carload shipments of grain, grain products, grain by-products and/or feed, which, after actual or constructive placement on track of elevators, mills or warehouses, are reconsigned or diverted under the conditions of this tariff, as would have governed had the shipment not been placed for unloading at the point of reconsignment or diversion, such consignment to be subject to a reconsignment charge of \$6.30 per car. (The provision of Rule 4-b hereof will not apply.)

Effective on October 15, this rule has been incorporated as Note 2 to Rules 12 and 14. Altho this is simply a transfer without change of a rule from the transit to the reconsignment tariffs, no advice was received by this com'te, except through public announcement, that the change was to be made.

It was decided to hold the next annual meeting at New York Nov. 16 and 17 at the New Yorker Hotel.

Herman Mueller, traffic director of the St. Paul Ass'n of Commerce, St. Paul, Minn., was elected pres.; Fred M. Renshaw, traffic commissioner of the Chamber of Commerce, Buffalo, N. Y., vice pres., and Roy W. Campbell, manager of the transportation department of Butler Paper Corporations, Chicago, Ill., treasurer. C. T. Vandover, Minneapolis, Minn., was among the nine regional vice presidents elected. Seventy-five directors were elected, among them J. L. Bowls, Milwaukee; G. S. Henderson, Baltimore, Md., and C. A. Lahey, Chicago.

The corn husking champion of the 7 corn belt states is Orville Welch of Piatt County, Ill., who husked 31.37 bus. in 80 minutes at Grundy Center, Ia.

Supreme Court Decisions

Digests of recent decisions by State and Federal Courts involving rules, methods and practices of the wholesale grain, field seeds and feedstuffs trades.

Fraud in Organization of Pool.—Member of organization committee of wheat growers' association held estopped from setting up nonperformance of conditions precedent and fraud, notwithstanding lack of actual notice. —*Kansas Wheat Growers Ass'n v. Windhorst*. Supreme Court of Kansas. 292 Pac. 777.

Bank Liable for Surrendering B/L Without Collecting Draft.—Shipper's petition alleging correspondent bank of collecting bank delivered B/L without collecting attached draft, in violation of instructions, stated cause of action against correspondent bank for wrongful conversion, entitling shipper to market value of shipment. —*Fourth & Central Trust Co. v. Aker Bros.* Court of Appeals of Ohio. 177 N. E. 602.

Personal Injury.—Where sacks in flour-mill fell from adjoining tier and injured laborer, happening of accident alone was evidence of negligence of millowner. Evidence sustained finding of millowner's negligence, where laborer's injury resulted from falling of heavy sacks piled under manager's direction. —*Bakken v. State of North Dakota*. Supreme Court of North Dakota. 234 N. W. 513.

Collecting Freight Charges.—Common carrier may collect freight charges from consignor or consignee, unless specially contracting to collect from one only. Carrier's placing of shipment on consignee's side track and crediting freight charges to consignee did not constitute special contract to collect charges from consignee only. —*Central of Georgia Ry. Co. v. Brown*. Court of Appeals of Georgia. 155 S. E. 787.

Chattel Mortgages.—Purchaser of mortgaged cotton seed from mortgagor acting as its agent was not relieved from liability because agent was acting against principal's interest. Even if agent was attempting to defraud, and did defraud, his principal, while defrauding mortgages, the purchaser would still be liable for value of seed, in that recorded mortgage was constructive notice of mortgagee's lien thereon. —*Little v. Southern Cotton Oil Co.* Supreme Court of South Carolina. 153 S. E. 462.

No Cancellation Unless Consented to.—Buyer's unanswered letter to seller held incompetent in seller's action for damages for breach of contract, being mere self-serving declaration. During course of negotiations between buyer and seller of onion sets for cancellation of sale contract, buyer wrote seller a letter stating, in substance, that former was glad to learn that latter was going to cancel contract. Upon receipt of letter, seller took up matter of cancellation with buyer's agent and refused to cancel contract. —*Fred Dose v. Chas. H. Lilly Co.* Supreme Court of Oregon. 286 Pac. 560.

Written Contract Supersedes Oral Negotiations.—The execution of a contract in writing supersedes all the oral negotiations or stipulations concerning its terms and subject-matter which preceded or accompanied the execution of the instrument, in the absence of accident, fraud, or mistake of fact in its procurement, and any representation made prior to or contemporaneous with the execution of the written contract is inadmissible to contradict, change, or add to the terms plainly incorporated into and made a part of the written contract. —*Wichita Flour Mills Co. v. Guymon Equity Exchange*. Supreme Court of Oklahoma. 1 Pac. (2d) 657.

Warehousemen.—Statute does not place upon warehouseman obligation to purchase any grain deposited with it under provisions of public warehouse law (Rev. Code 1919, § 9754). Tender of all proper charges held condition precedent to right of action against warehouseman to recover grain deposited with it (Rev. Code 1919, § 9754). —*New Aberdeen Equity Exchange v. Heller*. Supreme Court of South Dakota. 237 N. W. 777.

Officer of Corporation Liable as Partner

The Lubbock Grain & Coal Co. being in a failing condition W. M. Pevehouse refused to sell feedstuffs to the operators, J. D. Quick and W. K. Dickinson, Sr., but on representations that the Yellow House Mills were a separate organization consented to a sale provided an individual check was given in payment.

Quick gave his check for \$268.79 and it was dishonored.

The Court of Civil Appeals of Texas on Sept. 9, 1931, gave Pevehouse judgment holding that the "evidence showed that officers and stockholders of undissolved corporation were conducting separate business under new name, making them liable as partners for purchase of feedstuff." —41 S. W. Rep. (2d) 635.

Receivership of Farmers Elevator Co.

The Gravelle Farmers Elevator Co. was organized under the laws of Washington, and in 1928 leased its warehouse to the Reardan Union Grain Co.

On June 12, 1929, its assets consisted of the warehouse, valued at \$4,500, cash on hand \$2,666.86 and other items, the whole aggregating only \$7,594.72. Against this were outstanding promissory notes amounting to \$19,606. Some of these notes had been issued six years earlier and were barred by the lapse of time, but at a meeting of the directors June 12, 1929, a small payment was made on the notes to revive them.

The Supreme Court of Washington on Sept. 2, 1931, held that this payment by the manager was unauthorized and could be recovered by the receiver, because the manager knew or ought to have known that the company was insolvent, and had been so for three years. —2 Pac. Rep. (2d) 741.

Farmers Would Have Farm Board Investigated

The national Farmers Educational and Co-operative Union at its annual meeting at Des Moines, Ia., Nov. 18, adopted resolutions demanding an inquiry into Farm Board operations as follows:

Investigation of Farm Board

Whereas the administration of the Agricultural Marketing Act has so far failed to accomplish the purpose for which it was passed; viz, the stabilization of markets and the raising of agriculture to economic parity with industry, therefore we demand of the incoming congress that it order an immediate and searching investigation of the Federal Farm Board and all its subsidiaries.

Buyer's Neglect to Confirm Leaves Advantage With Seller

Dannen Hay & Grain Co., St. Joseph, Mo., plaintiff, v. Wm. Pollock Milling & Elevator Co., Mexico, Mo., defendant, before Arbitration Com'te No. 5 of the Grain & Feed Dealers National Ass'n, composed of R. A. Jeanerret, F. A. Derby and Lester Stone.

Jan. 30, 1931, the plaintiff sold the defendant one car of yellow ear corn. The transaction was completed over the telephone. This conversation was between J. R. Harper representing the defendant and E. A. Gumbert representing the plaintiff.

It is alleged by Mr. Harper that he purchased one carload of good sound, dry, yellow, well filled large eared corn. It is alleged by Mr. Gumbert that he sold the defendant one carload of dry yellow ear corn basis shipper's affidavit of weights, Dannen's grades.

It is not for this Com'te to say whether or not either of these parties has willfully misrepresented the telephone conversation, and it is, in fact, the belief of the Com'te that it is a matter of honest difference between the parties. There is, therefore, left to the Com'te only the developments following the shipment of the car, upon which to reach a conclusion.

The most pertinent and outstanding fact is that the car of corn after having been refused by the defendant was sold at 65 cents a bushel Mexico, Mo., which price is only 2 cents a bushel less than the original sale price. The evidence discloses that the average market price on shelled yellow corn in St. Louis was about 2 cents a bushel higher on the date of the resale than it was on the date of the original sale. It is a well known fact that distressed grain is invariably sold at a discount under its market value in order to effect a sale, and 4 cents a bushel is not an uncommon discount under such circumstances.

The evidence shows that the plaintiff confirmed the sale of this car of corn in a manner which conforms with his statement of the terms of sale. It discloses the further fact that the defendant's only written confirmation of sale is a letter written by J. R. Harper under date of Jan. 30, stating that they wanted the car of corn purchased on that date for C. B. & Q. billing to come to Mexico, Mo. It is evident, therefore, that the plaintiff followed custom in confirming his sale under the terms understood by him on the telephone and that the defendant was negligent in not having confirmed the transaction in the terms of his understanding on the telephone. It follows, therefore, that the Com'te must accept plaintiff's version of the matter, particularly, in view of the fact that the resale of the corn is evidence in itself that the corn could not have been of inferior quality.

We, therefore, find for the plaintiff in the amount of \$67.24 and assess costs of arbitration against the defendant.

Small Farm Trade Center Declines

The small farm trade center which has played such an important part in American rural life is on the decline. These small centers, consisting of one or two general stores and perhaps a small manufacturing establishment, a cream station, or an automobile service agency, have been growing steadily fewer in number during the last 25 years.

A recent study made by C. E. Lively, of the Department of Rural Economics at the Ohio Experiment Station, reveals that there were more than 1800 small trade centers with from one to four business establishments in Ohio in 1905; today the number is less than 1100. Only six per cent of those centers existing in 1905 grew to possess five or more business establishments. Forty-three out of every 100 disappeared as trade centers, and not many new ones sprang up to take their places. The decline was greatest in the southeastern hill section of the State, and least in the northwestern part.

This decline of small trade centers may be regarded as a result of (1) the growth of motor car transportation, and (2) the growing disposition of farm people to patronize larger trade centers where a greater variety and a more attractive selection of goods and services are available.

Opportunity and Mill Feed Futures

From address by C. B. RADER before Ohio Grain, Mill and Feed Dealers Ass'n at Columbus, O.

The opportunity offered at St. Louis to hedge purchases and/or sales of mill feeds in a successful liquid futures market is an opportunity that successful and efficient handlers of mill feeds have clearly recognized because years of hard work and experience put them in a position to visualize the value of protection against fluctuating and hazardous cash markets. In the past few months when mill feed prices were reacting to the general economic recession, many feed handlers took advantage of the opportunity afforded by the mill feed futures market. It was not luck that directed their attention to this protection, but good business sense that led them out of their difficulties into an opportunity that provided a bulwark of refuge against the losses that were coming to those who failed to fortify themselves against price uncertainty. They transferred the load from the shoulders of their own business to the strong back of this hale and hearty youngster, the mill feed futures market, which has so often proved that it could carry the load without trembling muscles or weakening confidence.

Unsolicited testimonials by users of these future contracts tell us that there is a great sense of security in having another loose end of their business tied up. We are told by several that the use of the mill feed futures market was the means of keeping them out of the "red" on this year's operations. Others tell us that great losses were averted by using the opportunity offered in the contracts, but probably the best example of lost opportunity is the statement of a prominent man in the trade, who said that several months ago a conference was held in his office by his associates; the subject was whether or not to use the St. Louis mill feed futures market. The decision was "no," and he said it cost them about \$30,000; that is to say, they could have minimized their loss thru the protection offered by the futures contracts.

The price of feeds is woven into the general economic price structure; that is to say, feed prices are influenced by the general merchandise structure. If we have a low or high swing in merchandise price we can expect to have a reflection in mill feed price, except in times of cover or under production of feeds. So, as the general price structure improves, we can expect mill feed prices to travel in the same company, and the dealer who, after analysis, believes that an improved general condition will create a demand for feeds, and that mill feed prices are a bargain, can take advantage of the opportunity offered in the future market and purchase his supplies in deferred months, take delivery, and realize a safe profit on the transaction. As an illustration, most dealers are familiar with local conditions and know generally what demands may be made upon them for mill feeds months hence.

Buying.—The wise dealer should know the condition of his customers' stocks, what he is apt to need, and then base his purchases accordingly; so, if the dealer finds that about four or five months hence he will need one or more carloads of feed, but is fearful that the price may be too high at that time, and feels that now is the time to buy but is reluctant on account of the hazards of storage or the lack of space, or does not want to pay interest on the money tied up in stock, he can purchase in the St. Louis futures market the quantity and delivery month he desires at the present low price, carry it along until the delivery month, then take delivery by closing out his future contract, thus avoiding the cost of storage, interest, and storage hazards. If the market declines after his future purchase, he can at the first evidence of price weakening, sell back his future contract, procuring price protection at a small cost.

Selling.—On the other hand, if a dealer is carrying a stock that can not be moved and prices are declining, he can sell it in the futures market, make delivery in the contract month, or buy back his sale, and merchandise the cost for whatever he can get, thereby protecting himself against large losses.

Dependable Grades on Future Delivery.—The purchase of a quantity of mill feeds in the futures market guarantees delivery if desired of mill feeds strictly up to the standards of the Feed Control Officials of the United States, as our definitions of mill feeds are those of the Feed Control Officials Association; all feeds delivered on contract are inspected by an experienced, competent inspector, and they must conform to the standards. The rules governing trading and grading of feeds are simple, and were framed almost identical to reflect the usages and practices of cash customs.

The unit of trade was established at 100 tons; lesser quantities in multiples of 25 tons are considered as job lots. The commission charge is 20¢ per ton per round trade; the same is applicable to jobs. The contracts are "standard wheat bran," "standard wheat middlings," and/or "brown shorts," "grey wheat shorts," and/or "flour middlings." Each calendar month is considered a trading month but in no case is a future contract made for a period longer than six months. The trades are cleared thru the St. Louis Grain Clearing Company; in fact the trading in these contracts is almost identical with the practices that apply in connection with future trading in grains. The market, of course, is primarily a hedging market, and practically all of the trading is for hedging purposes. However, deliveries are provided for, and when deliveries are made they must be accompanied by a Merchants Exchange certificate of analysis. This is done for the reason that there must be some place where the seller's responsibility ceases and the buyer's begins. Therefore, when the purchaser takes delivery of mill feeds on a contract at St. Louis he is certain that the commodity in the car is just what the certificate calls for. The grades of delivery are identical with those of the Asso-

ciation of Feed Control Officials of the United States; so that in taking delivery on futures contracts the same identical standards are used as if a cash contract is made.

Since the establishment of this market there has been a steady increase in the volume of trading. Orders are being executed from practically all sections of the United States and inquiry has been received from several traders in Europe, because the service that the market performs has been widely talked of; and many of its enthusiastic users speak of it as one of the most useful agents that the trade has acquired in many years.

We invite you to take advantage of the opportunities offered in these contracts. We believe you will find that to use them will be advantageous to your business. We need the support of the trade to further build up the scope of activity. It has been very gratifying to those at St. Louis to point with pride to probably one of the few things that has steadily gone forward in these distressing times. Here is an activity that many said would be a failure, especially so with the downward price trends and a weakening of public confidence. We were told that it was folly to attempt such a move; but not-

[Continued on page 606]

Seventeen Years Ago--

The first Randolph Grain Drier was put into operation.

-- And Today

Randolph is the selected Grain Drying Equipment for elevators and mills throughout the United States and Foreign Countries.

Engineers of large elevators and mills—men who keep in touch with all modern developments—who are constantly investigating improved methods—were among the first to prove the value of the Randolph Grain Drier as an additional insurance against losses in business. But—before they became regular users of the Randolph, they made the most rigid investigations of its practicability, its economy and its efficiency of operation.

The Original Randolph Principle of Direct Heat Drying Is Fully Protected by Patents.



Upon request we shall be glad to send you our catalogue giving complete information on the Randolph Grain Drier and how this Drier was originally developed to meet every requirement for handling all kinds of grain, seeds and beans.

O. W. RANDOLPH COMPANY
TOLEDO, OHIO, U. S. A.

Supply Trade

Nashville, Tenn.—Joe Werthan has been made pres. of the Werthan Bag Corp., succeeding the late Morris Werthan. His place as treas. is taken by Albert Werthan.

North Platte, Neb.—In the last month the general conditions have been much better over Western Nebraska and Colorado. By the first of the year I think we will be able to see much improvement.—W. H. Cramer Const. Co.

Des Moines, Ia.—We have just completed installation of one of the new 20-ton No-Twist Motor Truck Scales for the Farmers Co-operative Co. at Ottawa, Kan., which inquiry originated from our advertisement in the Grain & Feed Journals.—R. Buhrmaster, Gaston Scale Co.

We have the productive capacity, the raw materials and the capital necessary for profitable business. Only the demand is lacking. It is the function of advertising to create the demand. More emphasis is required on that essential fact. The economic benefit of balanced consumption within the means of the purchaser is not fully understood. Better publicity is the answer.—Calvin Coolidge.

Schenectady, N. Y.—Lewis Taylor Robinson, engineer in charge of the general engineering laboratory of the General Electric Co., died suddenly from a heart attack at his home Nov. 3. Dr. Robinson was a veteran electrical technician, one of the widest known electrical engineers in the profession, and for 12 years the head of one of the principal laboratories of General Electric, in many respects second only to the great research laboratory.

Chicago, Ill.—The com'te appointed to receive deposits of the capital stock, preferred and common, of Foote Bros. Gear & Machine Co., for the purpose of merging with Dodge Mfg. Corp., at a meeting held Oct. 19, 1931, resolved that it was not to the interest of the stockholders of Foote Bros. Gear & Machine Co., to proceed with consummation of the plan and voted unanimously to abandon the same.—J. F. Griswold, Pres., Foote Bros. Gear & Machine Co.

Schenectady, N. Y.—The General Electric Co. has announced a new motor starting switch designated CR-1062-C2 for use with general purpose motors. The switch is of the three pole type with double break silver "umbrella" shape contacts of strong construction. The operating mechanism has a snap action and trips free on overloads. If an overload operates to trip the switch, all three poles will open it. The switch also protects the motor against single phasing. The mechanism within the switch is positive so that vibration will not cause the switch to trip.

Eleven companies have merged with the Goshen Lightning Rod Co. to form what will be known as the West-Dodd Lightning Rod Co. Main factory and headquarters will be at Goshen, Ind., with branch offices at St. Louis and Harrisburg, Penn. Included in the merger are the Goshen Lightning Rod Co. and Cripe Lightning Rod Co., both of Goshen; Hawkeye Lightning Rod Co. and Burnett & Co., of Cedar Rapids; Dodd-Struthers, St. Louis Lightning Rod Co., Miller Lightning Rod Co., Shinn Mfg. Co., and Reyburn, Hunter, Foy & Co., all of St. Louis; Des Moines Lightning Rod Co. and Electra Lightning Rod Co., both of Chicago. It is claimed that these companies have been producing 90% of all rods manufactured in this country.

Kansas City, Mo.—The U. S. District Court on Sept. 3 dismissed for lack of jurisdiction the suit brot by the Ironite Co. against the Guarantee Waterproofing Co. for trade-mark infringement. Defendant purchased the finely ground iron from the Truscon Laboratories of Detroit, and the packages had thereon the words "Truscon" and "Ironite," stenciled by the Truscon Co. The court held that the patent was not upon the composition but upon the process of application; and, as defendant had not used the trade-mark by applying it himself to the merchandise, he was not guilty of infringement.—52 Fed. Rep. (2d) 288.

Schenectady, N. Y.—Adoption of the unemployment relief plan of the General Electric Co. was voted by 97 per cent of those balloting. The plan provides for rotation of available work and other means by which hourly-rated and piece work employes on the payroll Nov. 1 may be assured of receiving, during the following six months, not less than the equivalent of one-half of their average full-time weekly earnings up to an average of \$15 per week, and their actual earnings in case the latter amount to more than \$15 per week. The unemployment emergency fund of the company, to which those employes earning 50 per cent or more of their average full-time earnings (including all office, administrative and executive employes and officials of the company) now contribute one per cent of their earnings was augmented after Nov. 1 by increasing this contribution to two per cent, the company contributing an equal amount.

Opportunity and Mill Feed Futures

[Continued from page 605]
withstanding all of these adverse criticisms the market was born, it prospered, and grew, until today it has the same place in the milling and feed trade that the grain futures market has in the grain trade.

Elevator Head Drive With Backstop

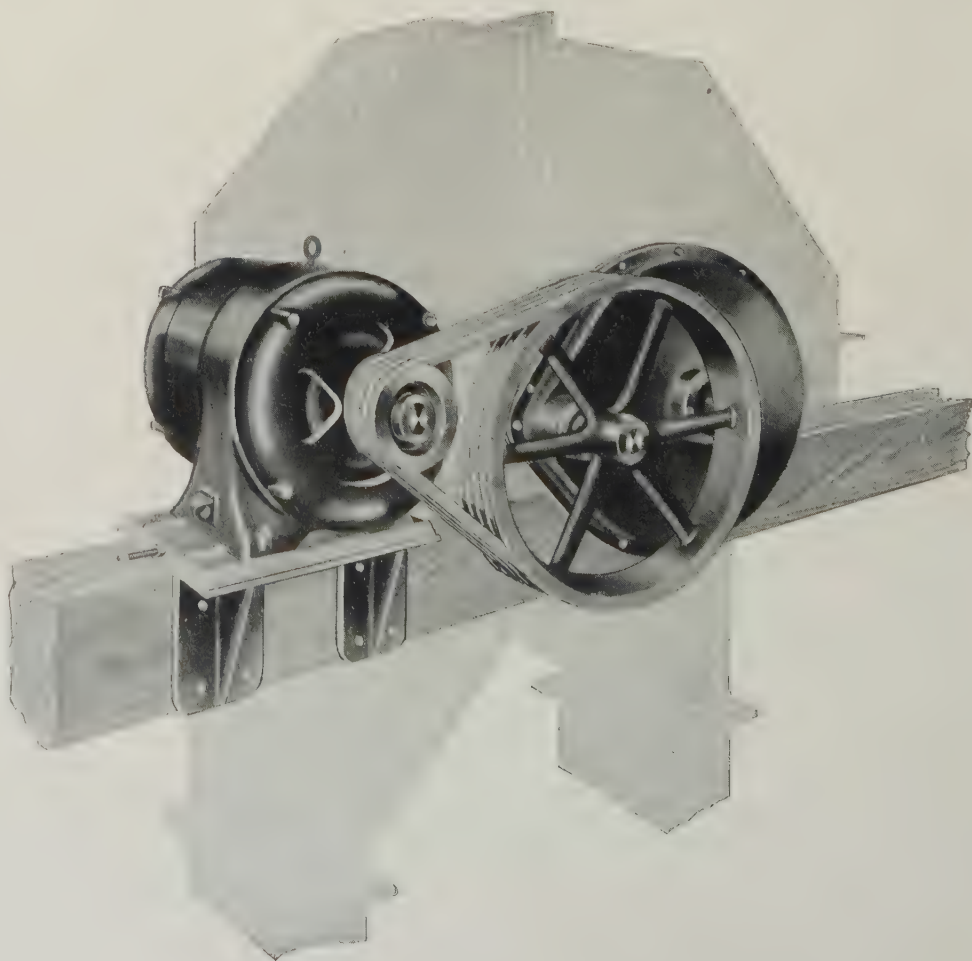
Backstops have come to be recognized as indispensable in elevator head drives for the elimination of choke-ups that cause loss of time and a fire hazard. Fortunately the inclusion of a backstop in the drive causes no loss of power, the centrifugal force keeping the backstop out of action while the head pulley is running.

The electric motors now used in up-to-date elevators operate most efficiently at high speeds, while the elevator head shaft must run at a comparatively slow speed to discharge the buckets. The necessary speed reduction can be accomplished efficiently by using both a V-rope drive and a gear, it being easy to incorporate the backstop in the gear casing.

The advantages of the V-rope drive are that various speeds of the head shaft may be obtained by simply changing size of motor sheave. This drive consists of only two sheaves and a set of endless belts that require no splicing. Their wedging grip makes unnecessary any idlers or belt weights. Where the several belts run parallel one broken belt does not stop the operation of the machinery. The short centers save space. The V-rope drives start without jerking, pick up speed smoothly and run evenly, having capacity to absorb shocks. Their silent operation is a mute testimonial to their efficiency.

The gears are inclosed and run in a bath of oil. The gears have two large double rows of ball bearings, one at each side of the gear. The casing needs to be filled but once a season with a good grade of heavy motor oil. The pinion and its shaft are accurately machined from one piece of special carbon steel.

The backstop has really only two parts: A ratchet wheel bolted to the gear housing,



Elevator Head Drive with Backstop.

and a ring keyed to the pinion shaft, inclosing four pawls that engage the heavy teeth on the ratchet wheel should the power happen to be shut off, stopping the backward motion of the head pulley. The entire back-stop may be removed in a few minutes without affecting the operation of the head drive. This combined elevator head drive and back-stop is manufactured by the Great Western Mfg. Co., who will supply additional information upon application.

New Calendars

Norfolk & Western Railway has sent in the first of the calendars for 1932, a large size, blue and white calendar, with legible lettering and numbering, that gives the preceding, current and following months on each sheet, likewise the long-distance weather forecasts, and the changes of the moon.



72 Steel Storage Tanks Beside Guy Fike's Elevator at Edson, Kan.

Guy Fike Solves Storage Problem With Tank Farm

Presented with the problem of finding storage space for the wheat of his patrons, and seeking a way out that would be of profit to the elevator, Guy Fike at Edson, Kan., made use of vacant property near his elevator.

On this property he erected 72 Columbian Red Top steel grain bins, arranging them in rows with space between for driving a truck or wagon. These bins are made of galvanized steel, heavily corrugated and swedged for strength, 24 gauge metal being used on the bottom and in the walls, and 26 gauge in the roof. They are provided with vents, and with hasps and keepers which permit locking them securely against pilferage.

Each tank has capacity for 1,000 bus. of

wheat. Mr. Fike rents them to his patrons at \$10 per month. They cost him approximately \$120 each, so that, assuming all are kept busy, the capital investment is returned in one year. When a bin is empty and no renter appears, Mr. Fike fills it with his own grain and keeps it employed.

This is an answer to quickly erected storage facilities that also eliminates many of the troubles that come with storing, in the customary fashion. The bins are rented to the farmers. The farmers do their own storing at a figure a little lower than the regular terminal rates. When they elect to ship it is their own grain that moves. If they wish to take grain back to the farm, their own grain is available. If they want loans on grain it is unnecessary for them to go to the elevator for an advance, as they have the grain to put up as collateral at the bank.

At the same time Mr. Fike has no responsibilities to assume for the grain other than those that naturally fall to the lot of a landlord.

Farm Board Extends Credit to Foreigners

The Farm Board, peddling wheat the taxpayers of the United States bought and carry, can afford to offer credit that Canada and Russia and Argentina cannot meet, terms that the wheat traders of the United States cannot meet. What does the Farm Board care for money? It draws from the Federal treasury what it wishes and spends it as it pleases. Difference between outgo and income means nothing to the Board; let the taxpayers sweat to make up the loss.—*New York Sun.*

I am with you in your fight to get the government out of the grain business.—Carl Cassidy, Frederick, Okla.



HESS DIRECT HEAT DRIER AND COOLER—1000 Bushels Hourly
CONTINENTAL ELEVATOR, operated by Continental Elevator Co., Kansas City, Mo.

*Hess Driers Are Patented.
We Do Not Infringe Patents of Others.
We Guarantee This.*

KANSAS CITY 1930 HESS DIRECT HEAT DRIER Eagle Elevator

Operated by Vanderslice-Lynds Co.

KANSAS CITY 1931 HESS DIRECT HEAT DRIER Continental Elevator

Operated by Continental Elevator Co.

KANSAS CITY 1931 HESS DIRECT HEAT DRIER

Rock Island Terminal Elevators operated
by Simonds Shields Lonsdale Grain Co.

*The Satisfaction and Service Given by Hess Driers
Has Always Been the Source of Our Business*

WRITE US

HESS WARMING & VENTILATING CO.
1211 SOUTH WESTERN AVENUE
CHICAGO, ILLINOIS

HESS DRIER CO. OF CANADA, LTD.
68 Higgins Avenue, Winnipeg, Manitoba

Field Seeds

Kansas City, Mo.—Nov. 28 is the date of the Western Seedsmen's Ass'n fall meeting at the Baltimore Hotel here.

Gallatin, Tenn.—Gallatin Lespedeza Seed Cleaning Co., Inc., has been incorporated by F. W. Gillespie, J. D. Harsh and William H. McLean, and capitalized at \$5,000.

Ripon, Wis.—Approximately 700 samples were exhibited by 163 Wisconsin seed growers, at the 1931 Wisconsin State Grain Show, just closed. Six of the 13 places were won by H. J. Draheim, Gotham.

North Powder, Ore.—145 tons of alfalfa hay was put up by W. O. Christensen from a 30 acre field this year, because he had applied sulfur to the land. Yields were nearly 5 tons per acre in 2 cuttings.

Raleigh, N. C.—Richard S. Orr, manager of Job P. Wyatt & Sons Co., is reported to be rapidly recovering from an operation for appendicitis, performed on Oct. 27. His friends will be glad to see him back on the job.

Cincinnati, O.—Fire destroyed the retail store and office of J. M. McCullough's Sons Co. on Oct. 31. A temporary location has been set up until rebuilding can be done. The company's warehouse, where most of the stock is carried, was undamaged. Insurance covered the loss.

Chicago, Ill.—Judge Jarecki in the County Court here, adjudged Charles J. McRoberts, Lakeland, Fla., insane on Nov. 12, and committed him to the state hospital at Jacksonville, Ill. Mr. McRoberts, who had identified himself as manager of a feed plant, is reported to have scattered \$50 bills from an air plane enroute from Indianapolis to Chicago.

Centerville, S. D.—A. J. Wimple, 80, nationally famous for his development of "Wimple's Yellow Dent" corn, grown generously and well liked thruout the corn raising country, died at his home here on Nov. 16, following complications from a stroke of paralysis suffered some weeks ago. He was born in New York state, moved to South Dakota in 1869, and began his experiments in developing corn varieties in 1904.

Directory

Grass and Field Seed Dealers

CONCORDIA, KANS.

The Bowman Seed Co., wholesale field seeds.

CRAWFORDSVILLE, IND.

Crabbs, Reynolds, Taylor Co., clover, timothy.

KANSAS CITY, MO.

Rudy-Patrick Seed Co., field seed merchants.

LOUISVILLE, KY.

Louisville Seed Co., seed merchants.

MILWAUKEE, WIS.

Courteen Seed Co., field seeds.

PHOENIX, ARIZ.

Capital Fuel & Feed Co., hay, alf., Berm., sor. seeds.

ST. LOUIS, MO.

Cornell Seed Co., field seed merchants.

Mangelsdorf & Bros., Ed. F., wholesale field seeds.

SEDGWICK, KAN.

Sedgwick Alfalfa Mills, field seed merchants.

Bismarck, N. D.—North Dakota farmers are being urged to select suitable seed corn from the last crop for the 1932 planting, since no over supply is likely. Farmers in favored sections will find a suitable market for it within the state, according to authorities at the State Experiment Station.

Thief River Falls, Minn.—Clearwater county alfalfa seed growers have registered protest against the ruling of former Commissioner of Agriculture N. J. Holmberg prohibiting sale of Grimm alfalfa seed in the state that was not state sealed and inspected to meet the provisions of the Pure Seed Act, as amended by the 1931 legislature. Enforcement of the ruling is asked deferred; it has been inoperative to date. Repeal of the law is anticipated.

Reducing Costs Before Crop Improvement Ass'n

"How Can the Cost of Production be Reduced and Quality Maintained?" will be the major problem for discussion by the annual meeting of the International Crop Improvement Ass'n, which will be held this year at the Bismarck Hotel, Chicago, Dec. 2, 3 and 4. This discussion will come before the open session at 2 p. m. on the 3rd. Agronomists, seedsmen, farmers, and representatives of experiment stations will take part in search for the answer.

The Ass'n's annual banquet will be held at the same place at 6:30 p. m. Wednesday evening, Dec. 2. This is one of the special features of the meeting, where many questions covering seed production will be answered.

Reduction in Alfalfa Seed Requirements Sought

A movement for standardizing the grades of alfalfa seed by reducing present requirements is understood to have started in the seed trade, and is being looked upon with favor or disfavor according to the quality of the seed grown in a locality.

The extra No. 1 class, now known as fancy, would change the purity from 99.5 to 99.25%. The old requirements allow 9 sweet clover seeds to a lb. of alfalfa seed, while the new would allow 90 such seeds. Noxious weeds would not be tolerated at all under the old standard, but under the proposed new classification 9 of these seeds would be allowed, providing they are mustard or fanweed. The discoloration would be lowered from 5 to 8%.

Corresponding reductions are made in the other grades. The second grade would be known as choice in place of No. 1 and is now labeled with a white tag instead of a red tag. The sample grade would retain the same yellow tag.

Bear raids on the wheat market last summer are to be investigated by the Senate Com'tee on Agriculture, which was asked by Senator Wheeler of Montana to make the inquiry at its session Nov. 24.

ED. F. MANGELSDORF & BRO.

Buyers and sellers of
Sweet Clover, Alfalfa, Clovers, Timothy, Grasses, Fodder, Seeds, Sudan Grass, Soy Beans, Cow Peas
St. Louis, Missouri

Knapweed in Iowa

Knapweed, a plant that grows profusely, and somewhat resembles the Russian thistle, prevalent in southern Europe, but heretofore unknown in this country, was discovered on a farm near Akron, Sioux county, Iowa, this summer.

Dr. A. L. Bakke, plant physiologist at the Iowa State College, Ames, is given credit for its discovery.

The next problem is to get rid of it.

New Grain Sorghum Harvested with Combine

Wheatland Combine Grain Sorghum is the name of a new variety of grain sorghums developed by the Kansas Experiment Station and grown on Kansas farms for the first time this summer. Sixty-nine farmers in 31 counties have grown Wheatland this summer.

This variety was specially developed for the benefit of farmers who wish to harvest their feed crop with a combine. Farms on which it has been grown have been show places for interested folks during the summer, and the fields were inspected by members of the Experiment station staff so the seed could be approved for distribution.

Safflower Planting Is Urged

Experiments with safflower seed at the Model Farms in South Sioux City, Neb., has acclimated this Oriental crop for production in the United States, according to S. T. Sherry, who has conducted the work.

Safflower, it is expected, can be grown year after year on the same ground without depleting the soil.

Objection to the seed has been the lack of a market. Reports from the Department of Agriculture indicate its oil is nearly equal to linseed oil for drying and painting and a search for a market has been conducted among American paint manufacturers, who are showing interest.

Extensive cultivation of the crop will reduce the acreage devoted to unprofitable small grains and supply the domestic paint market with an oil that will replace present imports.

LOUISVILLE SEED CO.

BUYERS AND SELLERS
All varieties CLOVER, FIELD and GRASS
SEED, SOY BEANS and COW PEAS

226 No. 15th St. LOUISVILLE, KY.
Long Dist. Phone 6727-6728



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Sudan Grass Makes Good Emergency Forage

Grain dealers and seedsmen, interested in the distribution of sudan grass seed, will want to read the following testimonial from an Ohio Experiment Farm, and some will want to use it in their advertising.

Sudan grass has proven to be an exceptionally valuable summer pasture for dairy cows at the Hamilton County Experiment Farm. It makes its greatest growth in July and August, thus furnishing excellent pasture during that critical period after bluegrass has passed its prime and before fall sweet clover is ready. During the most unusual season of 1930 it met successfully the stiffest test that could be put to an emergency pasture crop. At the time of sowing the seed early in June the soil already was so dry that it seemed impossible for the seed even to germinate. A fair stand resulted, however, and, although the rainfall for the next six weeks totaled only 1.42 inches, the sudan grass was over 18 inches high on July 28 when the dairy herd was turned in.

The drouth was practically unbroken all summer but, nevertheless, 22 head of Jersey cows pastured part time on five acres of sudan grass and kept up their milk flow throughout the summer without loss other than that due to advancing lactation. With such a small acreage, so many cows, and such dry weather, it was necessary to supplement with other roughages but this did not detract from the glory of the sudan.

The previous year with normal rainfall the growth was more rapid and greater in total. The method followed is to sow 30 lbs. of seed per acre in well prepared soil soon after June 1. With normal conditions the plants will be from 18 to 24 inches high in four to six weeks and will furnish continued grazing until frosted. After frost it is unsafe for pasture purposes.

Spartan Barley Finding Enthusiasts

Spartan barley, a two-row variety with large plump berries, developed by the Michigan State College and now grown on many farms over the state, is finding ready sale because of superior malting ability.

The weight per bu. and weight of individual berries is greater in this variety than in the ordinary 6-row varieties. This year, with unfavorable weather conditions, the ordinary barleys averaged per bu. weights of 44 to 45 lbs., while Spartan averaged 48. This variety is smooth-awned, has a stiff straw, and yields well.

Michigan grain dealers are a little better blessed with a demand for malting barley than are most other states. The last Michigan legislature legalized the manufacture and sale of "wort" which is regular, old-fashioned beer up to and including the last step before the product becomes intoxicating. This was done because it was being manufactured anyway and the Michigan politicians decided to face the issue and affix a tax before it was run to the hidden-away distilleries for the final step in manufacture. A great number of "wort" breweries may be found legally operating in Detroit alone.

The Michigan legislature, the only one to pass the measure which came before a number of other state bodies, is looked upon by Michigan farmers with more than ordinary tolerance, not simply because it had the good political sense to honestly face an issue and do the right thing about it, but because it opened up a premium market for good barley.

Oklahoma farm leaders are poorly pleased with Gov. Alfalfa Bill's suggestion for curtailing and regulating cotton and wheat acreage. They contend it would simply shift territory on present production, the curtailed wheat acreage going into cotton, and the curtailed cotton acreage being put to wheat.

Many Soybean Varieties

Soybeans are so low in price that the farmers are losing interest almost as fast as they gained it. Production is expected to be 33% greater this season than a year ago. The market on oil, used extensively in the paint industry, and on meal, which is a good high protein feeding supplement, coming in competition with other products used for the same purposes, has suffered sadly.

Under these conditions it looks like the U. S. Department of Agriculture would want to keep quiet about the great number of varieties of soybeans, over 2,000 of them, comprising the largest collection of its kind in the world, being harvested this fall at the Arlington, Va., experiment farm. These were collected by W. J. Morse, who spent two years in studying and collecting them from as many points as could be located including Japan, China, Manchuria, and Korea, the primary homes of the plant.

Seed from these countless varieties will be sent to the various state experiment stations in the spring for planting and further testing. About 30 varieties are already commonly grown in this country. Will the additional varieties do more than lead to confusion, and mixtures to trouble the buyer and processor?

Seed Experiment Results

Seed purchases should be made with due regard to seed origin, according to Vermont Station Bulletin 322, which surveys 15 years of seed inspection work in the state.

Banner, Victory, Alaska, O. A. C. 3, O. A. C. 72, O. A. C. 144, Abundance and Gold Rain are included in the varieties of oats accepted for registration in Canada by the Canadian Seed Growers Ass'n. They are described and illustrated in Canada Department of Agriculture Bulletin 147.

Sudan grass is looked upon with favor by the Michigan Experiment Station. Its Quarterly Bulletin No. 13 makes comparisons of emergency pasture crops under drought conditions on Bellfontaine sandy loam, near Augusta, where, in 1929, it furnished sheep twice as much pasturage as rape. The carrying capacity of Sudan is given as nearly one cow per acre for July, August, and part of September.

Barley probably could replace much of the oats now growing in South Dakota, according to South Dakota Station Bulletin No. 256, which gives the characteristics and merits of varieties tested at the station and its sub-stations over an extended period. The tests indicated April 15 as the best seeding date, and per acre seed requirements of 6 pecks in eastern parts of the state, 5 in the central, and 4 in the western. Odessa led the varieties in eastern sections. This was matched by Manchuria and Oderbrucker in central regions. Odessa and White Smyrna x Svanhals were good in north-central regions. Gatami, Ace and White Smyrna did well in far western sections.

Hardigan alfalfa, superior to other strains in winter hardiness, yielding ability, flower production and uniformity of growth, and Grimm, second in yield and hardiness, are considered the most popular variegated alfalfas and most dependable for Michigan conditions, according to Michigan Station Special Bulletin No. 211. Northern and high altitude common strains, including LeBeau and those from Michigan, Montana, Kansas, Utah, and Idaho, and Dakota common, were among the better common alfalfas. Arizona common, Hairy Peruvian, South African, and alfalfa seed from Argentina did not prove suitable for Michigan.

Insurance on drafts in course of collection has been raised to \$1 per \$1,000.

Big Grain and Hay Show at International Live Stock Exposition

Rural America will have its attention focused upon Chicago the week following Thanksgiving. The spotlight will be the International Live Stock Exposition, and its stages will feature a great variety of programs whose principals will be the aristocrats of America's farm animal kingdom. Record breaking entries in all departments of the big exposition assure the largest show in its history, says secretary-manager B. H. Heide.

From Nov. 28 to Dec. 5, this world renowned exposition, which brings the leading livestockmen and farmers of not only the United States and Canada, but the world at large, to Chicago, will celebrate its 32nd anniversary in its permanent home at the entrance of the Chicago Stock Yards.

Officials of the International Grain and Hay Show, a department of the Live Stock Exposition, but in itself the world's largest competitive display of small seeds, hay, and grain, state that in spite of the drought in many sections of the country this year, they look for the largest entry in the history of this event.

It will be due, they say, to the lifting of the ban on exhibits from corn borer infested regions of the country. Exhibits from infested territory may be sent to the exposition this year after careful treatment under Government supervision at regional assembly points before they are sent to Chicago.

They also assert that samples of wheat from as far remote points of the globe as three of the important wheat producing states of Australia are en route to the 1931 show.

The wheat quota system is to be adopted in Great Britain, to provide that a certain percentage of wheat milled must be home-grown, according to the Daily Telegraph.

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Experiment Station Livestock Feeding Results

Cottonseed meal protein was given an average digestibility value of 71.9% from 10-day digestibility trials conducted with 4 Jersey heifers at the Oklahoma Experiment Station, covered in the Journal of Agricultural Research, No. 10. Calculation was from a determination of the ratio of the amount of protein to both iron and silica in the feed and in the feces.

Addition of 10% linseed cake to the ration of young pigs was beneficial, 25% decreased the quality of the bacon but did not affect the rate of gain, 50% was impractical, according to the translated report of N. V. Tatarinova and M. Demurov on a Russian experiment. Using 10% of sunflower cake with corn or barley increased the rate of gain and produced bacon of medium quality; larger amounts produced too much fat. Cottonseed meal was found toxic.

Full feeding corn and tankage on soybean forage was the most profitable method, and full feeding corn and tankage in dry lot was the next most profitable method of finishing hogs in tests at the South Carolina Station, as recorded in Bulletin No. 151. This is figuring on the basis of gains and value of the carcass. About 75% of the hogs fed only corn and soybean forage killed soft or oily; whereas only 50% of the hogs fed a combination of corn and tankage on the same forage killed out in this condition. Soybean forage alone was not a good ration.

Dried buttermilk added to the basal ration of shelled corn, tankage and salt increased the rate of gain and decreased the feed required per unit of gain, in studies with 12 lots of 2 pigs each at the Iowa station, and described in its Bulletin No. 278. The pigs were started at 50 lbs. and brought up to 225 lbs., feeding so that the ration of each group varied from the preceding group by substitution of 10 lbs. of dried buttermilk for an equal quantity of tankage per 100 lbs. of supplement fed. Salt was fed in blocks, free choice.

With one exception the lots receiving dried buttermilk required less total protein per unit of gain than the lot receiving tankage proteins only.

The tests demonstrated that 100 lbs. of dried buttermilk was approximately equal in relative feeding value to about 75 or 80 lbs. of tankage, considering gains produced. On the average it replaced 75 lbs. of tankage and 7 lbs. of corn in producing gains.

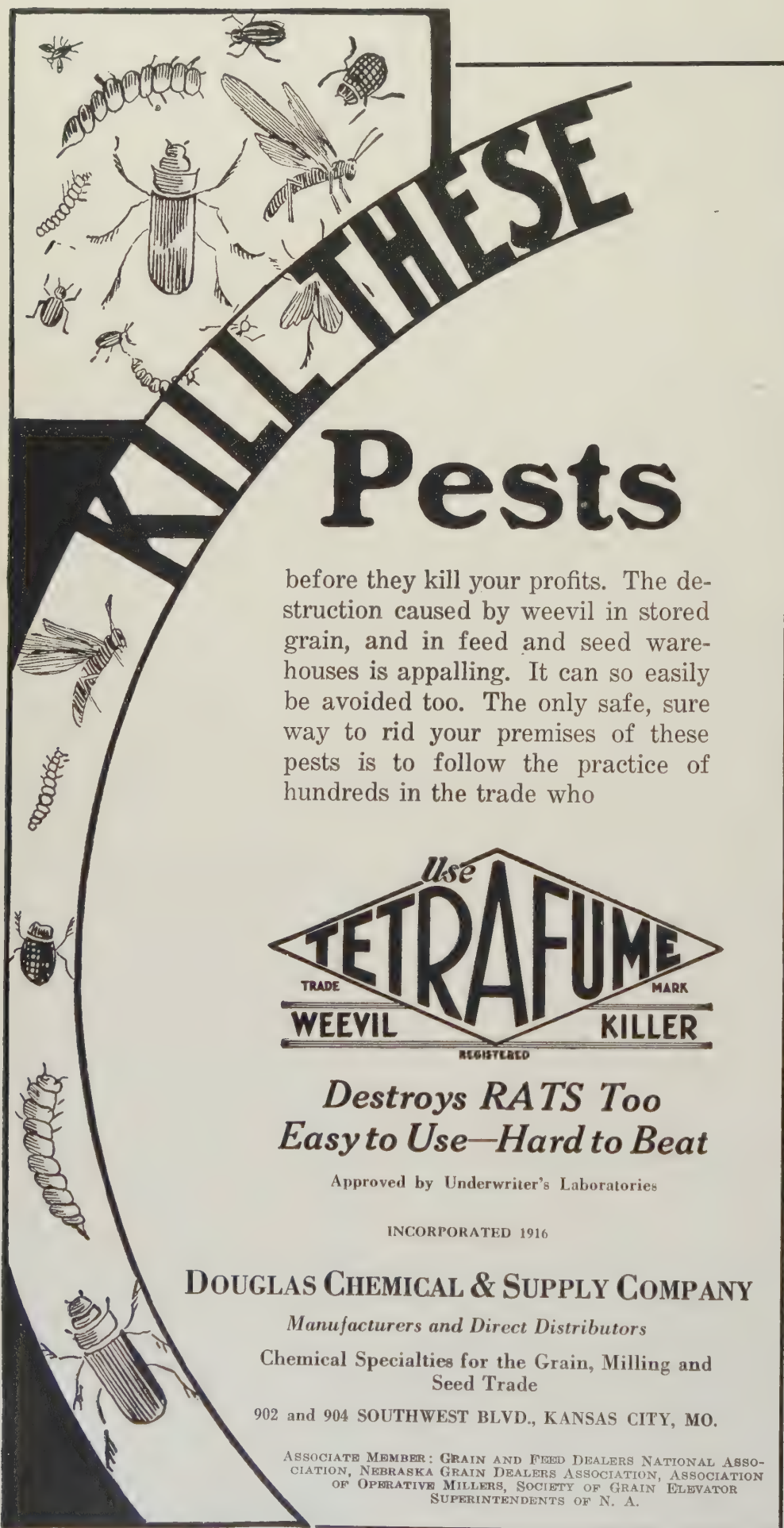
Farmers Fed Up on Advice from Bureaucrats

Having read a suggestion in *Bradstreet's* that instead of abolishing the Farm Board it be retained in an advisory capacity, Samuel Fraser a farmer of Geneseo, N. Y., writes:

May I ask—as a farmer, fruit grower and nursery man—whether you are judging their ability to advise on the basis of the advice handed out the past two years and the performance of the Board or is this a little sarcasm? I am in earnest, for I cannot see how you could wish to inflict some more of this on a suffering agriculture. Do you not think we are “fed up” on advice and demonstration? I can assure you a lot of those in agriculture feel that way and a lot have been opposed to this type of legislation ever since it was proposed.

We want equal opportunity with other lines of industry, no handicaps, no favors. Proper access to credit for all farmers, not credit at public expense to certain types of organizers of so-called “farm co-operatives” and we do not want credit extended on any other than a business basis. Cut out the charity idea of salvaging the inefficient by loading him onto the efficient.

Senator Wm. H. King of Utah stated. Nov. 11 that he was drafting a bill to abolish the Farm Board. He says the Board has been a “complete failure.”



KILL THESE Pests

before they kill your profits. The destruction caused by weevil in stored grain, and in feed and seed warehouses is appalling. It can so easily be avoided too. The only safe, sure way to rid your premises of these pests is to follow the practice of hundreds in the trade who

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Feedstuffs

Sesame meal is one of the most popular vegetable protein feeding supplements in Germany because of its high digestibility, and mineral and fat content, which promotes health and condition. The product is looked upon as a complete protein supplement.

St. Louis, Mo.—A new record for futures trading in millfeeds is being made this month. The first 12 days showed a daily average in excess of 4,000 tons. The total for the first 12 business days aggregated 50,750 tons.—St. Louis Merchants Exchange.

Lafayette, Ind.—70 head of steers were put on experimental feed on the 19th of this month. Many members of the Indiana Cattle Feeders Ass'n, which held its annual fall convention here at that time, were among those present at Purdue Experiment Station.

Seattle, Wash.—The Seattle district of the Washington Feed Dealers Ass'n met here on Nov. 6, and discussed public liability and products insurance. A resolution was passed approving support of the proposed chain store bill; and another urged the Ass'n to establish a permanent Standards Com'ite.

Everett, Wash.—Feed dealers of the Snohomish district met here on Nov. 9. Public liability and products insurance came up for discussion. A resolution passed urging establishment of a permanent Standards Com'ite. Present grinding and mixing charges were considered too low at \$2 a ton, exclusive of hauling. A fair basis for operation at the elevator would be \$3 per ton, exclusive of hauling, it was felt.

J. P. Towns at Gonzales, Tex., has a pecan grove, also a 28 year old cow that still bears a calf every year. When released after milking she makes a bee-line for the pecan grove, and the fruit of the trees is included in her diet. Maybe the pecans have something to do with her long life, but Mr. Towns' tender heart probably has had a greater influence. It is unlikely she would fit into a herd of high producers any better than Christmas pecans fit into the dairy formulas of feed grinders and mixers.

Manufacture of creamery butter in Wisconsin increased from 156,000,000 lbs. in 1929 to 171,000,000 in 1930. Along with this 10% increase came a rise of 4.5% in total cheese production. Manufacture of condensed milk dropped 4% and output of evaporated milk decreased 5% in 1930. Looks like the publicity of the creameries and milk producers' ass'ns, favoring the use of whole milk for health has been doing effective work. Every point of increased production widens the market for the grain and feed man.

Cottonseed meal and cake got on a spring-board early this month and started jumping up. Among the reasons given for its rise, which incidentally brought delight to a lot of feed brokers and cotton oil mills, was development of a foreign outlet. European buyers became hungry for it, say the reports, because the Sino-Japanese troubles in Manchuria cut off supplies of soy beans and soybean meal and cake. American cottonseed meal and cake was supposed to be the answer for a feed hungry Europe. South Texas, normally filling the export demand, was unable to satisfy it and buyers went as far north as Memphis.

Eight cows moved from an ordinary farm to a feeding experiment station, increased their milk production 30%. In the first case they received feed; in the second a balanced ration designed to keep up their bodies and manufacture milk at the same time. That is an argument to sell feeds, if the balanced ration is suitable for feeding cows of the community.

Some question may arise as to whether federal laws will permit action taken in northern California in an attempt to bring a living wage to the feed groups that are being constantly annoyed by the ravages of itinerant feed peddlers. Organization of local groups, appointment of stabilization com'ites, and resale price control on branded feeds and concentrate ingredients are included in the program. California has a law prohibiting price cutting or dumping when this is aimed at injuring competition. Whether a price cutter is attempting to injure competition or just get rid of burdensome inventories is always a debatable question. In either case this law will be the basis for such action as may be taken by com'ites.

The results of an experiment published elsewhere in this number belie the oxidizing reputation of cod liver oil, and open the way for including it in the formulae ground and mixed by the local elevator operator. The principal precaution is use of good quality oil, high in vitamin content. Cod liver oil has been reputed to oxidize and lose its vitamin potency on exposure to the air. For this reason grinders and mixers have been constantly advised to sell this product separately, rather than attempt to mix it in their formulae, instructing the farmer to add just the right amount, in small batches that will be fed within a few days. It is difficult to get the farmer with a relatively small flock to trouble himself with the necessary procedure for a thoro mix, whereby each hen or chick will get the proper amount of the ingredient.

Washington, D. C.—Of the total exports of United States mixed dairy feeds during 1929, 28% went to Europe, 66.6% to North American countries, 1.4% to Australia and Africa, and 4% to Asia; mixed poultry feeds, 5.7% to Europe, 92.5% to North America, .9% to South America, .4% to Asia, .5% to Australia and Africa; other prepared and mixed feeds, 43.4% to Europe, 54.8% to North America, 1.2% to South America, .5% to Asia, 1% to Australia and Africa. The figures for 1930 are mixed dairy feeds, 23.9% to Europe, 71.5% to North America, 3.1% to South America, .04% to Asia, 1.5% to Australia and Africa; mixed poultry feeds, 1.1% to Europe, 96.8% to North America, 1.6% to South America, .4% to Asia, .1% to Australia and Africa; other prepared and mixed feed, 57.5% to Europe, 40.9% to North America, 1.4% to South America, .02% to Asia, .2% to Australia and Africa.

St. Louis Feed Prices

The following table shows the closing bid price each week on the St. Louis market per ton of standard bran, gray shorts and standard middlings for the February delivery:

	Oct. 24	Oct. 31	Nov. 7	Nov. 14	Nov. 21
Bran	\$11.80	\$13.30	\$13.50	\$12.25	\$12.75
Shorts	13.80	15.10	16.25	14.80	14.60
Midds	12.75	14.75	15.75	13.75	13.75

New Feed Trade Marks

S. L. Jones & Co., San Francisco, Cal.—No. 319,932 for sardine meal. A diamond-shaped design, inclosing the word "Vacca." Stenciled.

Adulteration and Misbranding

The Shreveport Mill & Elevator Co., Shreveport, La., has been indicted by the federal grand jury on the charge of shipping short weight packages interstate.

Lower Power Rates Sought

Reduction of power rates was the prime subject before a meeting of members of the New Richmond (Wis.) District Dealers Club recently. Over 40 were in attendance.

Members decided to see the companies serving them and request a reduction so that operation of their grinding and mixing facilities could show them a profit.

An educational discussion of selling methods was also brought before the club.

Iron Deficiencies Cause Cattle Losses in Florida

Deficiency of iron or iron and copper in the rations of Florida cattle is the greatest single cause of loss to the industry in that state. The condition is commonly known as "saltsick."

It can be prevented by giving cattle access to a mixture of 100 lbs. common salt, 25 lbs. red oxide of iron, and 1 lb. of finely ground copper sulfate.

Probably iron oxide in the ration would help.

And the Sale of Feedstuffs Wud be Larger

Twenty-five million acres of land in the United States, formerly used in the production of feed for horses and mules, now is in competition with the land devoted to market crops. The American farmer began turning away from his best friend, the horse, some 15 years ago. Horses and mules on farms in 1929 were 2,441,000 fewer than in 1925.

If these 25 million acres could be turned back to their former use tomorrow, the surplus production bogie would have a broken back; and the commercial fertilizer bill would be cut down materially.—*The Agricultural Review*.

60-Day Delivery Plan Lauded by Feed Men

A resolution replying the co-operation of Midwest Feed Manufacturers Ass'n, sectional group in Kansas City territory, to the plan for 60-day delivery limit on bookings originated by a special com'ite of the American Feed Manufacturers Ass'n, was passed at the last dinner and business session of the group, held Nov. 6 at Kansas City. Nineteen members were present.

L. J. Walsh, Kansas City, wired from St. Louis his resignation as pres. of the group, giving as his reason inability to devote time to office that it deserved. Acceptance of his resignation automatically placed **A. B. Schrieber**, St. Joseph, vice-pres., in his place until the election next May. Mr. Schrieber presided.

G. Schmierer, Kansas City, chairman of the Business Conduct Com'ite, urged that members closely adhere to the sound, ethical business practices which time has demonstrated both profitable and fair.

The next meeting of the group was scheduled for on or about Jan. 15.

Feed Control Officials Change Definitions

A number of changes in the definitions of feed ingredients, tentative definitions established as official, and new tentative standards proposed, were among the accomplishments at the annual convention of the Ass'n of American Feed Control Officials, held Nov. 5 and 6, at the Hotel Raleigh, Washington, D. C.

Among the important changes in definitions was the one on mineral feeds, wherein the first two paragraphs were made to read as follows:

Mixed feed containing both feed and more than 5% of mineral ingredients requires, in addition to the usual declaration of the chemical feed analysis, a declaration of each ingredient contained therein and the minimum of lime expressed as CaO, phosphoric acid expressed as P₂O₅, iodine (I), and the maximum percentage of salt (NaCl) if same is added. If minerals predominate in the mixture the usual declaration of the chemical feed analysis, with the exception of protein, may be omitted.

Mineral feed containing no organic ingredients do not require the usual chemical feed guaranty, but do require a declaration of each ingredient therein and the minimum percentage of lime represented as CaO, phosphoric acid, represented as P₂O₅, iodine (I), and the maximum percentage of salt (NaCl) if same are present.

The tentative definition for oat crop, ground oats, pulverized oats, crushed oats, and crimped oats, was made official, defined as "consists of the entire product made by chopping, grinding, cutting, crushing, or crimping oats."

Other oat product definitions made official included:

Oat groats are the kernels produced from cleaned and dried oats in the process of manufacturing oatmeal.

Hulled oats, undried oat groats, are the kernels produced from the undried grain in the process of hulling oats.

Oatmeal, ground oat groats, is the product produced by cutting, cracking or grinding oat groats.

Roller oat groats (rolled oats) is the product obtained in the process of rolling oat groats.

Tentative definitions for corn products were made official, displacing the old definitions for corn bran, corn feed meal and grits. They read:

Corn chop, ground corn or cracked corn is the entire product made by grinding, cutting or chopping the grains of sound Indian corn, and may be fine, medium, or coarse, and shall not contain more than 4% of foreign material.

Screened corn chop, screened ground corn, or screened cracked corn is the coarse portion of corn chop, ground corn, or cracked corn from which most of the fine particles have been removed, and shall not contain more than 4% of foreign material.

Corn meal (feeding) is finely ground, unbolted corn.

Corn bran is the outer coating of the corn kernel, with little or no starchy part of germ.

Corn feed meal is the fine siftings obtained in the manufacture of screened corn chop, screened ground corn or screened cracked corn, with or without its aspiration products added.

Corn grits, hominy grits, are the fine or medium sized, hard flinty portions of Indian corn, containing little or no bran or germ.

Corn screenings are the small, light grains of corn, parts of grains of corn and/or other cereals, and other materials having feeding value, obtained by screening shelled corn, excluding sand, dirt, and other similar inert materials.

The tentative definition of milk products, which formerly read "condensed soured skimmed milk (feeding)" was changed to read "evaporated, soured, skimmed milk (feeding); concentrated soured skimmed milk (feeding); condensed, soured, skimmed milk (feeding)." The product was defined "resulting from the removal of a considerable portion of water from the clean, sound skimmed milk which has been soured by a suitable culture of lactic bacteria. It contains not less than 27 per cent total solids."

Several tentative definitions were established, covering some items relatively new to the trade. They read:

Iodized salt (feeding) is common salt (NaCl) containing an alkaline iodide in quantity equivalent to 0.15 iodine uniformly distributed.

Dried soured skimmed milk (feeding) is the product resulting from the removal of water from clean, sound, skimmed milk which has been soured by a suitable culture of lactic bacteria. It contains not more than 8 per cent moisture.

Milk sugar feed (dried whey) is the by-product from the manufacture of cheese containing at least 70% lactose (milk sugar).

Cod liver oil is the product obtained by the extraction of part of the oil from cod livers.

Sardine, pilchard oil, is the product obtained by the extraction of part of the oil from the whole pilchard or cannery refuse of the pilchard.

Salmon oil is the product obtained by the extraction of part of the oil from the cannery refuse of salmon.

Tuna oil is the product obtained by the extraction of part of the oil from the cannery refuse of tuna.

Menhaden oil is the product obtained by the extraction of part of the oil of the whole menhaden.

Hominy feed or meal is a mixture of corn bran, corn germ (with or without a partial extraction of the oil), a part of the starchy portions of either white or yellow corn kernels or mixture thereof, obtaining in the manufacture of hominy, hominy grits, or table meal, and contains not less than 5% of fat. If prefixed with the words white or yellow the product must correspond thereto.

Among the questions on which action was taken in the form of requests or instructions were:

A decision to request the Federal Food & Drug Administration to confer with the executive com'ite of the Ass'n on a definition for vitamin D oil.

Instructions to the Mineral Food Com'ite to consider the fluorine content of feedstuffs and make recommendations for such action as the subject warrants.

Instructions to the sec'y to notify feed control officials of the crude fiber situation in alfalfa meal, to guard against acceptance of registrations containing alfalfa mash meal as an ingredient.

A recommendation that any use of artificial colors in the manufacture of feedstuffs be disapproved.

TENTATIVE amendments were made to the definitions on marine products, providing that they should contain not to exceed 3% salt, but these were left tentative. This followed the report of the Fish Meal Com'ite that high salt content caused a toxic condition, and salt contents of fish meal shipments have sometimes run as high as 30%.

A SUBSTITUTE definition for cod liver oil, sponsored by W. B. Griem of Madison, Wis., reading, "Vitamin D oil is any processed oil rich in vitamin D," failed, altho it was supported by Ruel Manning of the U. S. Bureau of Fisheries, who contended much inferior oil is sold today as cod liver oil, and purchased because the buyer believes he cannot get equal vitamin D content in other oils. Domestic fish oils, he declared, are often equally as rich in vitamin D. The vitamin content is more a question of manufacture and storage than is generally assumed.

The Com'ite on Screenings made an attack on the by-product, reporting its sale admitted "much deception and fraud." Screenings were classified as refuse, that should be purchased only on analysis of protein, fat and fiber content.

"SUFFICIENT DATA have not been collected as yet to permit the issuance of even tentative standards for alfalfa meal," reported W. A. Wheeler, chief of the Hay,

Feed and Seed Division of the Department of Agriculture. Further experimental tests are being conducted to this end so that the quality of meal may be determined.

COM'ITES AND OFFICERS: Among the com'ites appointed were those to study:

Soybean products and prepare a definition on the subject.

Limestone, and a definition for it.

Whale meal and submit a definition for this product.

TWO COM'ITES were dropped, one on table scrap meal, and one on liquid hoof, horn and hair. Nothing was found for them to do.

ELECTION of officers placed the following for the ensuing year: H. R. Kraybill, La Fayette, Ind., pres.; W. C. Geagley, Lansing, Mich., vice-pres.; L. E. Bopst, College Park, Md., sec'y-treas. G. L. Bidwell, H. A. Halvorson and S. B. Griem, were named to the Executive Com'ite.

Vitamin D Isolated

Vitamin D has been isolated. The impossible has been done. Feed grinders and mixers, and poultry men will look upon this discovery with joy, in expectation of learning more about the elusive factor that makes cod liver oil a virtual necessity in present methods of raising chicks, and keeping hens laying.

Prof. Adolf Windaus, a German scientist, isolated the crystal of pure vitamin D, after 4 years of research. Its physiological effects are the same as those of sunshine.

"Three-billionths of a gram of the crystal is sufficient to relieve rickets, the diet disorder which is caused by vitamin D deficiency. But one fifty-thousandth part of a gram is poisonous," relates Prof. Windaus' spokesman.

The discoverer found certain wave lengths of ultra-violet rays transform about 50% of ergosterol into vitamin D, and the remaining 50%, not vitamin, is easily removed. Vitamin crystals absorb ultra-violet light most strongly at 2,650 angstrom units, the measurement of light impulses.



L. R. Hawley, Memphis, Tenn., Pres.-elect Southern Mixed Feed Mfrs. Ass'n

Are You Grinding for Fun Or for Profit?

Why does an elevator operator put in a grinder and go after the grinding business among the farmers of his community? The answer is obvious, the same from whatever angle you approach it.

If it is because the grain business has degenerated and the community has taken to feeding, it is to find a line which will keep the elevator busy making money.

If it is because competition forces profit out of the grain business and sidelines become necessary, it is to make money.

If it is because the elevator man finds the property busy only part of the year and the rest of the time hangs heavy on his hands without income, it is to increase his income.

If the grinding equipment is used only to draw trade to the elevator, as frequently happens, it is still to make money for the owner.

This being so there is no point to doing grinding for nothing. Your labor and equipment is entitled to fair return. The owner must have something for depreciation and obsolescence and replacement even tho he detests profits.

We might add that when the grinder alone is not profitable enough to keep the operator in business, installation of a mixer and extension of operations into the building of complete formulas will often put it on a paying basis. Even those who have no complaint on the returns of their grinders will find the mixing idea worthy of consideration. Most of us could stand a little increase in income.

Cod Liver Oil in Feed Mixtures Relatively Permanent

After hearing a great deal of conversation about the inability of cod liver oil to hold its vitamin content when mixed into feeds that are left standing for several months before going into consumption, the report of A. D. Holmes, M. G. Pigott, and D. F. Menard, comes as a pleasant surprise to the elevator operators doing grinding and mixing who want to prepare complete formulas incorporating the proper quantity of cod liver oil.

In their study 4 tests were made with 2 series of pens to each test. Chicks used were Rhode Island Reds, housed in battery brooders and fed all-mash rations for 8 weeks.

One series was fed cod liver oil, freshly mixed with the mash. The second series received the same amounts of oil, which had been incorporated in the mash by a feed mill. The completely prepared mashes, incorporating cod liver oil, had been stored for 2, 4, 7 and 10 months.

One check group received no oil in its ration. This lot grew unsatisfactorily, failing to feather and becoming rachitic. The rate of growth of chicks receiving oil increased with the increase in amounts of oil fed, regardless of whether it was freshly added or stored in the mash for the periods mentioned.

Examination of the tibiae removed from chicks on the 21st, 35th and 56th days showed equal bone development for comparable amounts of cod liver oil, regardless of whether the oil was freshly added or had been stored in the mash.

The results of this experiment indicate that mixing low acid, vitamin-rich cod liver oil in finely ground poultry mashes during the course of preparation, and leaving these in storage for periods up to one year, does not injure the vitamin content of the oil.

Accordingly the principal measure for those interested in preparing such feeds is purchase of good quality, low acid oil for use in their mixes.

Northern California Will Hold Feed Stabilization Conference

Northern California feed interests are doing something about conditions in their industry. This is taking form in a Feed Stabilization Conference, initiated by com'ites from 14 retail feed areas in that section of the state.

These com'ites have sent invitations to executives of feed manufacturing plants, grain wholesalers, and concentrate distributors to meet with them at a conference starting at 10 a. m., Nov. 28, in the directors room, Chamber of Commerce Building, Sacramento. The purpose is to discuss a general stabilization program for the feed industry, in which all groups may unite to mutual benefit.

Constructive cooperation between relatively small feed grinders and mixers, large manufacturers, concentrate supply houses, and retail stores is necessary to build confidence and merchandising methods which will pay a fair return to all groups. Calling of this conference is a beginning to this end.

The program to be placed before the conference includes:

Resale price control on branded feed and concentrate products in accordance with recent law permitting resale price control contracts when necessary to curb cut price vendors.

Local Stabilization Com'ite selected by dealers and authorized to investigate average operating margins on grains, mashes (including those manufactured locally) and concentrates and to establish confidence between local dealers and wholesalers. These Com'ites will use as a basis the recent law prohibiting price cutting or dumping when aimed at injuring competition.

Cooperation of all Com'ites to develop such resale service as will maintain consumer feed distribution with feed dealers.

Extension of county wide ordinances to protect local business groups against itinerant truck peddlers.

State wide organization of feed manufacturers, farm groups and state regulatory agencies to get enforcement of Commercial Feed Law.

New York Protein Supplement for Hogs

A good supplemental hog feed that furnishes elements frequently found lacking in hominy, corn, barley or wheat, is a mixture of 50% tankage or fishmeal, 25% linseed meal and 25% alfalfa meal, according to John P. Willman of the New York State College of Agriculture. Skimmilk will make less of it necessary if it may be bought at a reasonable price.

While pigs receiving a well balanced ration need little mineral mixture other than salt, a simple mixture of 40% ground limestone, 40% steamed bone meal and 20% salt will do no harm, and may prove helpful in speeding up gains.

The Return of Horses and the Market for Oats

Grain and feed dealers who recognize the important place of the horse in farm power equipment and as a consumer of grains, will find hope for a rebuilding of oats consumption in the following editorial from *Spokesman & Harness World*:

Have you seen the advertising now being issued by the Oliver Farm Equipment Sales Co.? You will find it rather amazing because it is the first public indication from the tractor groups that they finally do realize the horse has a proper place on the farm. The advertisements really feature the horse, and state that "today a lot of farmers are looking at the old grey mare again as America's chief power and the mother of future power."

Such advertisements have appeared recently in farm papers having a combined circulation of more than 4,250,000. The Oliver concern is one of the largest tractor

producers in the country, as it recently absorbed the Hart-Parr-Rumley group. This kind of advertising issued by so important a company appears mighty significant. It amounts to an admission that at least one big tractor firm recognizes the fact that the horse is coming back into its own. The brightly colored bubble, representing the fond dream of completely motorized farms, has burst. And so the farm equipment people are bidding for the horse-drawn business again.

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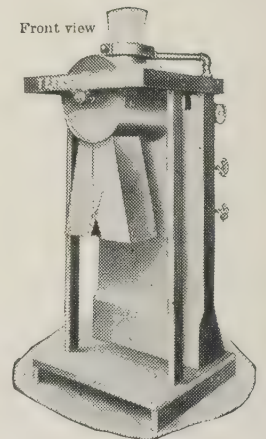
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is proving itself not only a business getter but a business holder. Your patrons want sweet feeds — equip your elevator to give them what they want. The Texas Cyclone — built in two sizes — is economical and efficient.

Ask us for more detailed information regarding this "profit builder."

Norwood Manufacturing Co.

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Poultry Feeds and Feeding

New York, N. Y.—Bayeux B. Morgan, formerly with the Gulf Crushing Co., is now associated with the Oyster Shell Products Corp., traveling in the east.

Morton, Pa.—The Pratt Food Co. is broadcasting a novel educational program on poultry raising over the Columbia Broadcasting System. "Mikes" have been installed in one of the barns on the company's experimental farm and the programs originate right on the farm.

An average of 760 eggs are produced every second in the United States, and create \$20 worth of wealth, according to figures turned out in the statistics machine of the U. S. Department of Agriculture. The chicken and egg income for the country is estimated at \$1,175,000,000.

A traveler in Germany found "Electro-Wood," in use for brooding chicks. The device looks like an ordinary piece of wood board, but electric wires are spaced thru its center, and connected so that the device may be plugged in on electric current. Electricity warms the board.

Turkey production is on the up grade again. Government figures showed the turkey population on Oct. 1 to be 2% larger than a year ago, tho still under the 1929 figures of that date. Conditions for raising turkeys were favorable west of the Mississippi river this year. Maybe the grasshoppers had something to do with it.

CHICKEN CENSUS figures are estimated to have dropped 10% on U. S. farms. This may have something to do with the profit that is now available in feeding them for egg production. With no Farm Board acting on the chicken market it did not take long for the reduction to be effected and for prices to come back in answer to supply and demand.

A resolution passed by the Arkansas State Poultry Ass'n at its last annual convention favored a state candling law which would eliminate hazards for buyers of Arkansas produced eggs. Lack of cold storage and candling facilities is the limiting factor in consumption of the state's poultry products. Only 65% of its own demand is satisfied within the state.

Sacramento, Cal.—Board of Pharmacy inspectors are reported to be calling on general store and feed store dealers in the rural districts, advising them that cod liver oil is a medicine and therefore cannot be distributed thru such channels. Feed interests of the state contend cod liver oil is a food, valuable for its high vitamin content, and should be kept easily accessible to the poultry and livestock industries at reasonable prices.

Poultry raising in Minnesota pays over \$60,000,000 annually in returns, according to a report put out by the Agricultural Extension Division of University Farm at St. Paul. It further reports that the average farm flock, numbering 87 hens, produces the bulk of this figure, only a small portion is credited to commercial flocks of 500 birds or more. The farmer with a small flock is much less likely to attempt his own poultry feed mixing than the commercial man with many birds to feed. Of course, \$60,000,000 isn't nearly so much as the Farm Board was given to play with, but every ambitious elevator operator ought to be able to get his share if he provides his elevator with modern grinding and mixing equipment, and his patrons with good formulas that produce profits on the feed consumed.

Ohio's Simple Mineral Mixture for Poultry

A simple mineral mixture, sold by a number of firms in open formulae, found thoroly effective in poultry feeding at the Ohio Experiment Station, is 60 lbs. poultry bone meal, 20 lbs. oyster shells or 95% calcium carbonate limestone, and 20 lbs. table salt.

This may be mixed with dry mash at the rate of from 2 to 4% by weight, depending upon the composition of the mash. Or 2 to 4% bone meal and ½ to 1% salt may be mixed into the mash, and oyster shell fed free choice in separate containers.

Poultry Experiment Results

Cottonseed meal in laying and breeding rations proved a satisfactory substitute for meat scrap when supplemented with a mineral mixture containing phosphorus, calcium carbonate, and sodium chloride, according to South Carolina Station bulletin No. 273. Fertility of the eggs was unaffected, but when it replaced all the meat scrap hatchability was very unsatisfactory. When it replaced only half the meat scrap hatchability was little reduced. Feeding the meal did not affect the weight or quality of the fresh eggs, nor of the hens.

The same station found that ground barley could successfully replace ground yellow corn in the laying mash provided the scratch grain contained a large amount of this grain and green feed was available. Use of ground barley is dependent upon availability of source of vitamin A.

Usually practical poultry mashes contain about 1.2% of calcium and a larger amount of phosphorus than is required, according to studies by H. S. Wilgus, Jr., at New York Cornell Experiment Station, wherein 10 pens of 45 day-old White Leghorn chicks were fed for 16 weeks. Varying amounts and proportions of tricalcium phosphate and calcium carbonate were added to the basal ration. It was found for normal growth the calcium-phosphorus ratio could vary between 1:1 and 2.2:1, while a ratio of 2.5:1 was on the border line and 3.3:1 caused nutritional disturbances.

A method of calculating coefficients of digestibility of poultry feed, prepared by V. G. Heller, L. Morris and H. E. Shirley, of the Oklahoma Experiment Station, is shorter than others formerly in common use and eliminates necessity for exact determination of amounts of food wasted, the total excreta, and the tedious study to find uric acid and ammonia salts. A comparatively short analytical determination of iron is introduced.

Simplified rations, low in vitamin B, must be fortified with approximately 40% of dried yeast to be adequate for chicks, according to an experiment at the Missouri Station wherein the basal ration consisted of casein, cornstarch, dried yeast, lard, cod-liver oil, cellulose, and salt mixture 35:28:15:10:5:3:4. The active constituents of fresh yeast are obtainable in water-soluble form, and on a dry basis 20% of the water extract is equivalent to about 40% of the dried yeast. (*Jour. Nutrition*, 3 (1930), No. 1). Experiment covered synthetic diets.

Nutritive paralysis, a peculiar form that affects the feet and legs of chicks, is prevented by a vitamin factor in milk, found in a vitamin concentrate from milk, in yeast, autoclaved yeast, and alfalfa meal, as well as whole or skimmed milk. The factor may be missing in meat scrap, menhaden fish meal,

and dried whale meat. The study is covered in *Poultry Science* 10 (1930-31), No. 2.

Standard-Bred Poultry Make Better Market for Feed

The American Poultry Ass'n is putting out publicity encouraging breeding of standard types and varieties of chickens. The idea is to eliminate waste, increase production and standardize eggs and other poultry products.

Grain and feed men wish them every success. Standardized products and standardized birds will produce better returns for the farmers and poultrymen than can possibly be expected from the mongrel flocks that now forage freely over the fields and in the yards of so many farmers who give insufficient attention to this important sideline. If the farmer makes a profit he becomes a better customer for the elevator.

"A Standard-Bred Flock on Every Farm," is the slogan of the Ass'n. The man with grinding and mixing facilities will boost his own business by encouraging the thought among his patrons.

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extension instructor in poultry husbandry, New York State College of Agriculture at Cornell University, is an up to date treatise on the raising of poultry. The poultryman who keeps hens as a main enterprise, the farmer whose flock is incidental to other farm operations, and the feed dealer who wants to talk knowingly about poultry raising will all find the book useful and profitable to read. Printed in large type, and with many illustrations, its 400 pages are full of practical information.

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Poultry Shows Will Have Many Exhibits

Many breeders of fancy and standard poultry will have entries at the poultry show, and present indications for both Chicago and New York register no let-up from the successful exhibitions of former years. With the return of profit has come the return of interest in poultry.

The Chicago Coliseum Poultry Exposition will be held Dec. 1-6. Entries are already closed and will almost double those of last year. Meets of over 30 specialty clubs and poultry organizations will be held. Included in the showing will be flock exhibits of 10 birds or more; a baby chick show; a dressed poultry department; a turkey, a rabbit and a pet show. Most unusual will be 3 Japanese Tosa fowls, especially imported for the occasion.

Affairs of the Chicago exhibition are in charge of Harvey C. Wood, sec'y of the Coliseum Poultry Exposition, 1909 Board of Trade Bldg., Chicago. A feature this year will be the mailing of "breeder's help" cards to entrants after the show, whereon the judges will have noted the weak points in the bird described. These will help breeders improve their stock.

The Madison Square Garden Show is scheduled for Jan. 13-17. Entries close Dec. 16. Judging will begin at noon on Jan. 12, so that it may all be done before the show is opened to the public. Information regarding the Madison Square Garden Show may be obtained from Lincoln Orr, sec'y, Madison Square Garden Poultry Show, Inc., Orrsmills, Cornwall, N. Y.

Iowa's All-Mash Ration

The all-mash method of feeding is recommended by the Iowa State College for giving the hen a full ration of all her requirements. The formula found satisfactory by the college includes:

650 lbs.	ground yellow corn
350 "	" heavy oats
100 "	" wheat
80 "	meat scrap or tankage
20 "	dried skim milk
4 "	fine salt

If tankage is used in place of meat scrap it should have 60% protein.

A source of calcium carbonate and gravel should be kept before the birds at all times, as well as a plentiful supply of clean water.

Peanut Meal in Poultry Rations

In effort to reduce the cost of poultry rations experiments have been conducted by Dr. Reece L. Bryant, Ass't Prof. of Poultry Husbandry at Virginia Polytechnic Institute, replacing as high as 50% of the animal protein in poultry mashes with peanut meal.

A secondary reason for the experiments was desire to increase the outlet for the peanut crop of Dixie. Peanut meal has been fed successfully to hogs, tho it has a tendency to make soft pork; it is assumable that it would work in some measure with poultry. Regarding the experiment Dr. Bryant says:

It has long been taught, that vegetable proteins could not be used satisfactorily for poultry feeding, but the experiments prove that, when peanut meal is properly supplemented with minerals, it can be used to replace at least 50% of the meat scrap in the rations of growing chicks without affecting growth or general health. In fact, the death rate for chicks receiving peanut meal was lower than that of chicks receiving only meat scrap, or meat scrap and milk as protein foods.

At the present ratio of prices between meat scraps and peanut meal, the cost of producing each pound of weight was less in the lots where peanut meal was fed than in the lots where this ingredient was not

present. The experiments also show that peanut meal, however, cannot be used to replace all the meat scrap without decreasing the rate of growth materially.

Alfalfa Meal Production Continues Light

Washington, D. C., Nov. 16.—Alfalfa meal production in the United States during October, 1931, totaled 14,204 short tons, according to reports received from meal grinders by the U. S. Bureau of Agricultural Economics.

Approximately 41,500 tons of meal were in store at mills at the first of October. This, with the month's grindings, made an aggregate supply for October of approximately 56,000 tons. Stocks at the close of October were about 38,700 tons. Domestic consumption accounts for most of the difference of 17,000 tons, since exports in recent months have been relatively small. Exports during September totaled only 101 short tons.

Alfalfa meal production in the United States follows:

Month—	Production in Tons			
	1931-32	1930-31	1929-30	1928-29
July	12,676	22,272	24,408	26,707
August	15,678	28,614	28,884	38,716
September	16,623	40,025	32,252	42,925
October	14,204	24,994	40,847	40,427
November .....	.....	27,705	27,785	33,132
December .....	.....	25,646	42,077	31,898
January .....	.....	33,285	44,821	51,232
February .....	.....	15,403	41,653	37,393
March .....	.....	13,140	22,871	27,893
April .....	.....	12,141	15,588	14,659
May .....	.....	10,617	11,197	8,686
June .....	.....	22,242	30,666	19,385
Total for year.. ..	.....	291,677	362,049	374,053

For Egg Production Duplicate Spring Feeding

In the spring an ample supply of high protein feed is available to poultry in the form of insects and worms, grass is green and tender, and the sunshine full of vitamin D. To obtain winter egg production these feeding conditions should be duplicated so far as possible.

Tankage or meat scrap, dried buttermilk or dried skim milk and similar products in the laying mash take the place of the absent bugs and satisfy the demand for animal protein. Where only tankage or meat scrap is available it should make up 20% of the laying mash.

If a vegetable protein is added to the mash to replace part of the animal protein, from 2 to 4% steamed or raw bone meal should be used to take care of mineral deficiencies. Salt should constitute 1% of the mash. Oyster shell, calcium carbonate and grit may be fed just as conveniently separately. The birds will fill their needs from open hoppers.

Alfalfa meal will take the place of the greens in the hen's diet. Green leaf meal is most efficient. Sprouted oats are good.

For the sunshine, feed cod liver oil, or some of the fish oils that are heavy in vitamin D. Poultrymen are glad there is a way to get sunshine into the birds system even if the sun isn't shining. Barrelled sunshine It should constitute 1% of the mash part of the ration and be mixed with the mash on the farm.

B. W. Snow of the Federation of American Business will speak Dec. 1 at the annual meeting of the American Ass'n of Creamery Butter Manufacturers at Chicago on "America at the Crossroads."

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In three parts: Part I is devoted to the principles of feeding, explains which elements have been found essential in feeding poultry and tells why certain combinations are made. Every grain or feed-stuff used for poultry is discussed in Part II. Rations for every class of poultry keepers are included in Part III.

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Tankage Needed With Corn for Profitable Hog Production

Corn alone is not sufficient for profitable pork production. This is pretty commonly known. It is one of the reasons for the increased demand for tankage as a supplement for hogs.

What the hog needs is balance in the proteins, fats, carbohydrates and minerals of his diet. Wherein lies the value of an experiment with 5 groups of pigs, averaging 135 lbs., fed for 120 days at the Iowa Experiment station. The results showed:

GROUP 1: Fed nothing but corn, salt and water. Gained approximately 2/3rds of a lb. per head per day. Required 672 lbs. shelled corn for 100 lbs. gain. Poor showing.

GROUP 2: Fed 4 lbs. tankage to each 100 lbs. corn consumed. Averaged 1.06 lbs. gain per head daily. Required 529 lbs. feed for 100 lbs. gain. One lb. tankage showed 7.5 lbs. of corn saved. Supplement short, but made a lot of difference.

GROUP 3: Fed 6 lbs. tankage for each 100 lbs. of corn consumed. Gained 1.36 lbs. per head daily. Required 476 lbs. feed, 447 lbs. corn and 29 lbs. tankage for each 100 lbs. gain. One lb. of tankage equaled almost 8 lbs. of corn.

GROUP 4: Fed 8 lbs. tankage to each 100 lbs. of corn consumed. Gains were approximately the same as in Group 3. Increased tankage consumption brought no satisfactory response, simply increasing the cost.

GROUP 5: Fed 10 lbs. tankage to each 100 lbs. of corn consumed. Gains were 1.23 lbs. per head daily. Required 518 lbs. of feed for each 100 lbs. gain. Unprofitable com-

pared with Groups 3 and 4, from which it shows increased costs and reduced gain.

Apparently from 6 to 8 lbs. of tankage makes the proper balance for 100 lbs. of shelled yellow corn in feeding shots started at from 125 to 150 lbs. Placing such information before patrons should help the sale of tankage, and help make their feeding operations profitable.

Whale Meal Good Feed for Livestock

Lewis Radcliffe, deputy commissioner of fisheries, speaking before the American Ass'n of Feed Control Officials at Washington, called attention to whale meal, offal of the whaling industry, as a source of animal protein.

Because the whale lives on marine life, after the manner of a fish, it was assumed that the composition of whale meal would have the nutritional advantages usually attributed to fish meal, sea life having available a greater variety of elements than land life.

Whale meal is a new feed on the American market. Output of the industry is relatively small, probably not exceeding 25,000 tons, because 92% of the world's production of whale oil is taken in the Antarctic sea, during a few weeks fishing in the summer of that global area where whales still abound. Interest in the oil, and lack of storage space for meal on factory ships that remove the oil from the whale carcass, discourage production from this source. Whale meal being marketed comes principally from land stations fairly accessible to markets. Normally it is sold in markets fairly close to home, the present conditions and importations without duty, may force it inland and into greater use.

Cottonseed Meal in Decline

By J. M. TRENHOLM

Memphis, Tenn., Nov. 21.—Conditions surrounding all future markets for the past week have been changing so rapidly from day to day that even the best posted traders are mystified. In October the majority had been led to believe that conditions had changed for the better, and were willing buyers of stocks and commodities only to realize in November they had been led astray. Liquidation has been going on with increasing momentum carrying prices back as rapidly as they advanced. The cottonseed meal market has withstood these bearish influences perhaps better than any other market. The decline has been gradual but prices are now down practically \$3 per ton from the high, \$1 a ton since Monday.

Demand until this week has been good but continual liquidation has slowed up trading in actual meal. Most of the selling in actual has been done by resellers. Mills are well sold thru December and have not been following the decline. The future market has had to absorb heavy hedge selling this week, the heaviest offerings being on Friday when the wheat market broke 4 cts. per bu. Competitive concentrates have not been reduced in price to any material extent.

There has been a good export demand for cottonseed meal, but the official figures published by Washington were disappointing to the trade. Exports from this crop through Dec. 31 were 53,679 tons. This is much less than was expected. The ginning report published today was 14,210,301 verifying the Government estimate of a very large crop.

Trading today was slow. The price of cottonseed meal gave way again. December declined 25 cts. but the more deferred months did not lose as much relatively. The close was reasonably strong at the decline with \$15.60 being bid for May. Tenders of 100 tons of cottonseed meal were made on November contracts making total deliveries to date 700 tons.

The Federation of American Business held a public meeting Nov. 17 in the Decatur Club at Decatur, Ill. Much interest was shown.

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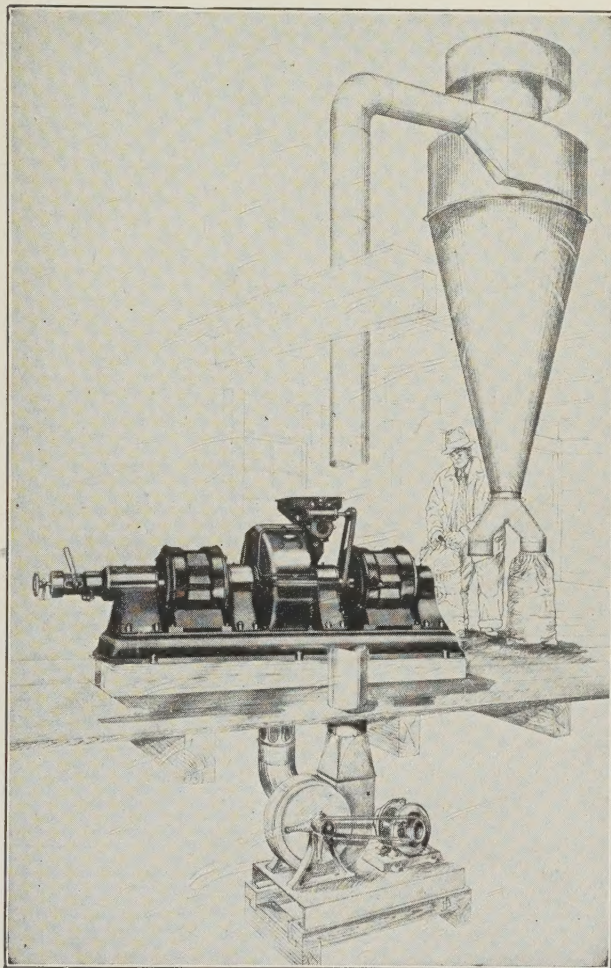
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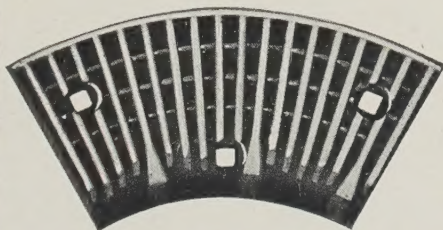
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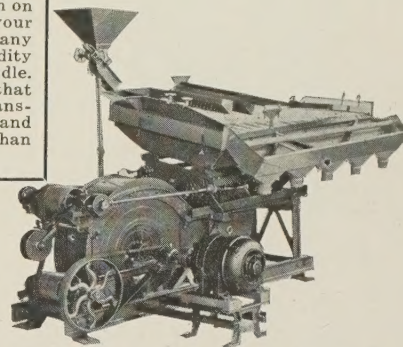
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The Lawther Mills had been hauling their oat hulls away and dumping them. A total loss. In fact it was an expense, because it cost something to haul the oat hulls to the dumping grounds.

Knowing that their waste hulls contained some pure oat groats, the Lawther Mills had been trying to devise a means by which they could recover this pure oat groat content.

Hearing about the wonderful success seedsmen were having with our Specific Gravity Separator, they decided to investigate. We made a free test separation, and found that a large percentage of their waste hulls contained pure oat groats.

They immediately ordered a machine, and told us later that out of the first carload run over the machine they recovered enough pure oat groats to pay for it.

For a limited time we are offering, free, samples taken direct from the Lawther Mills. Included in one package are four samples. (1) Material before going over our machine; (2) Refuse from our machine, husks only; (3) Middling, material that automatically goes back over our machine until all pure oatgroats are extracted; (4) Pure oat groats.

See for yourself what our machine is doing for the Lawther Mills. It will save you just as much money as it saves them. Don't delay another day. Send the coupon for your free samples.

NOTICE: Our machines are fully protected by patents and infringers or users of any infringing machines will be prosecuted to the full extent of the law.

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ADDRESS

Grading Factors for Alfalfa Meal Being Developed

Grading of alfalfa meal has been one of the problems before feed control officials for some time. It has not been settled, and buyers are still forced to depend upon the reputation of the mill preparing it, or upon their own judgment from examination of a sample. This opens the way for controversies that otherwise would not arise.

Feed control officials are working at finding a means for quick, intelligent and reasonably accurate grading. The following excerpts from the address of W. A. Wheeler, U. S. Bureau of Agricultural Economics, before the Officials annual convention, early this month, demonstrates the progress that has been made.

During the fall of 1930 a field trip was made for the purpose of again contacting the alfalfa meal manufacturers and others interested in standards. Several hundred samples, including leaf meal, stem meal, and meal made from artificially dried hay, were collected and forwarded to the Washington laboratory. As the samples were obtained from practically all of the manufacturers, they represented a fairly accurate cross section of the meal produced in 1930-31.

A laboratory in which to study the various factors was established and equipped during the fall and winter of 1930-31. This contains apparatus necessary for making chemical analysis, namely: protein, fiber, carbohydrates, fat, moisture, and ash determinations, also aspirating, sifting, and grinding apparatus for mechanical determinations.

Preliminary experiments were carried on to determine the methods of procedure in studying the factors of quality in alfalfa meal, using samples of hand picked leaf and stem for these studies. In one set of experiments it was found that when various mixtures of these were ground to a certain degree of fineness and then reground through a finer screen, the leaf particles pulverized and passed the second screen more rapidly than did the stem particles, and that a correlation may exist between the amounts passing through the screen and the protein content of the same. Experiments to test the separation of the leaf and stem particles by mechanical sieving showed that the finer particles were higher in protein, but the difference between the protein of the coarser and finer particles was not great enough to be used in a practical way for determining the quality of meal.

A series of samples of commercial meals were then ground to uniform fineness, and thereafter reground for a definite time, and the protein determination made on the part that passed the screen, as well as on the residue, and these results compared to the actual protein in the original sample. This work indicates that it may be possible, after further study, to determine from the amount that passes the screen the quality of the meal, especially that of leaf and stem.

While all these results are of an exploratory nature, they give indications of the possibility of a mechanical determination of meal quality that can be used in the practical inspection. Already a considerable number of commercial samples of meal have been carefully submitted to analysis and found to fall in line quite uniformly with anticipated grading groups.

Seattle, Wash.—Current charges being made for grinding and mixing are being investigated by the Trade Practices Com'te of the Feed Dealers Ass'n of Washington. A questionnaire is being distributed to collect and compile information from which conclusions may be drawn regarding fair and equitable rates, and recommendations made to the Ass'n membership.

Milwaukee, Wis.—Contesting of selling rights is reported under way between Standard Brands, Inc., successors to the Fleischmann Co., manufacturers of yeast, and the Wisconsin Alumni Research Foundation over yeast products treated by the Dr. Harry Steenbock patented process for irradiating foods. The Research Foundation says it sold the right to sell yeast for health food only, and reserved the rights covering feed irradiation. Standard Brands contends the contract should be interpreted so it has exclusive right to sell its yeast to feed manufacturers.

Milk Products Volume for Feeding Increases

A sharp increase in the volume of milk by-products going into production of animal and poultry feeds manifested itself in 1930 in spite of lowered national milk production and reductions in the amount of feeding done.

These products, principally going into the mixes of feed formulas by institutions such as the country elevators equipped with grinding and mixing machinery, have found their greatest sale going to this class of retail trade. This is patent from the figures of mixed feed sales from large manufacturers doing a shipping business, which registered a material decline in 1930, and further decline since. It seems evident that absorption of the increased production of milk by-products for animal and poultry feeding would have been impossible among large manufacturers who have suffered so severely from reduced sales volume, it being generally accepted that very few large feed manufacturers are employing as much as 50% of their capacity.

MILK PRODUCTS DECLINE: 1930 figures for total production of all dairy products showed a decrease from 1929 for the first time in 10 years, the period for which adequate records are available. Butter declined 2,000,000 lbs.; condensed milk, 92,000,000 lbs.; malted milk, 250,000 lbs.; ice cream, 14,000,000 gals. Cheese increased by 28,000,000 lbs.; powdered whole milk by slightly more than 2,000,000 lbs. Reduction of all figures to their milk equivalent demonstrates a reduction in the amount of milk used in manufactured dairy products of 164,000,000 lbs.

INCREASES IN FEEDING BY-PRODUCTS. In spite of this decrease in the amount of total manufactured dairy products there was another jump upward in the by-products for both human and animal consumption. These increases included cottage cheese, concentrated skim milk, condensed and evaporated buttermilk, dried buttermilk, dried skim milk, casein, and milk sugar. The figures on products used in preparing feed formulas show:

Concentrated Skim milk: This animal food totaled 19,127,000 lbs., an increase of 4,000,000 lbs. over 1929. Out of 16 states reporting this product, Indiana ranks first with 24%, followed by Iowa with 23%.

Dried Buttermilk: Production totaled 67,031,000 lbs., an increase of 13,000,000 lbs. Minnesota produced 20%, Wisconsin 19%, and California 9%. The balance was reported by 24 other states.

Dried Skim milk: Total production was 259,991,000 lbs., an increase of 52,000,000 lbs. or 25%. Wisconsin supplied 24% of the total, New York 19%, and California 16%. None other of the 36 reporting states produced in excess of 10% of the total.

Italy has increased the duty on rice, effective Oct. 12, 1931. The new rates, in paper lire per 100 kilos gross, are as follows (old rates in parentheses): Rice, in the husk, 41 (11); partly husked, 50 (16.50); cleaned, 60 (23.90); rice flour, 60 (23.90).

Government operation of cattle ranches in Queensland, Australia, begun several years ago, to cut out the middleman and give the public cheaper meat has resulted disastrously. The deficits were enormous and meats were dearer. After sinking \$12,100,000 in the meat enterprise the government sold out for \$2,600,000. Disregarding this experience our Congress enacted a law heading us in the same direction, with the difference that the Farm Board's losses already are many times greater.

Hog Feeding Weight Standards for Your Feeders

What weight a pig should reach in a given number of days on full feed is worked out in a table by John M. Evvard, long associated with the Iowa Experiment Station in charge of swine feeding experiments.

They constitute a measure for what a good feeding ration, sanitary conditions, good housing, and good feeding practice should do.

Assuming other factors to be correct, will your supplement produce these results:

Age in days	Good weights lbs.	Superior weights lbs.
Birth	2.2	2.5
60	40	50
90	70	85
120	110	125
150	150	180
180	200	240
210	245	295
240	285	350
270	320	400
300	350	
330	380	
360	405	

Donahue - Stratton Co.

MILWAUKEE

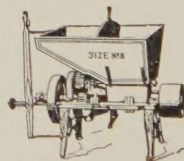
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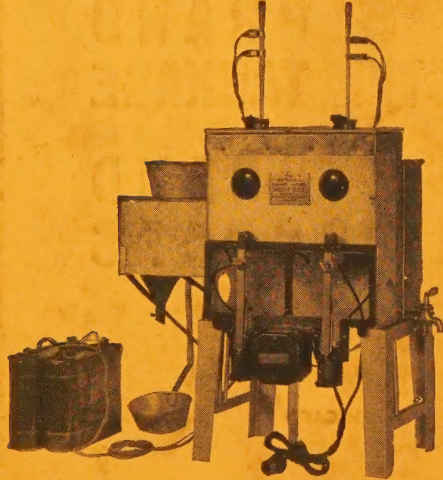
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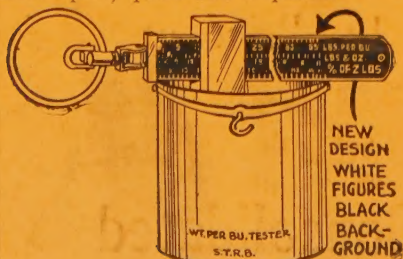
GRAIN PROBES AND TRIERS

Brass with inner brass casing and open handle in sizes from 39 inches long, 1 inch in diameter, with six openings, to 62 inches long, 1 3/8 inches in diameter and 10 openings.



WEIGHT PER BUSHEL TESTER

It is as easy to read the figures on the beam as the printing on this paper. Strongly constructed, polished brass measure holds the grain, and a brass beam with sliding brass poise quickly gives test weight. The beam has three graduations to give weight per bushel to show percentage of loss in cleaning and give exact weight of sample. Three sizes—pint, quart and 2 quarts.

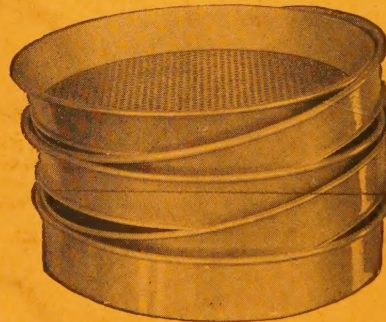


DOUBLE WALL COPPER FLASKS

The use of this device in place of the glass flasks in the Moisture Tester will accurately show when flour, meal or feed contains excessive moisture, and will enable millers and feed manufacturers to take proper precaution in preventing costly losses due to deterioration.

DOCKAGE SIEVES FOR WHEAT, CORN AND OATS

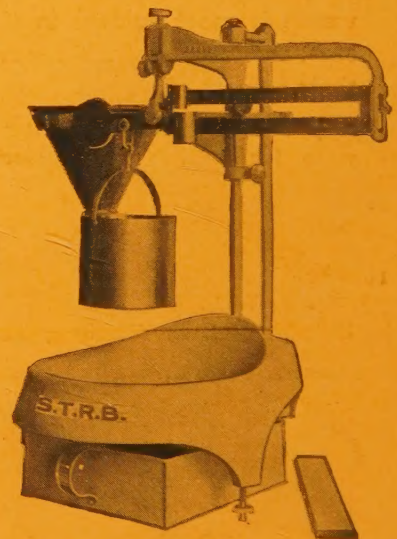
Made of 20 gauge aluminum, 13 inches in diameter. Sides are seamless, bottom perforations are of aluminum also. Strong, light and will not rust. Set consists of Scalper Sieve, Buckwheat Sieve, Fine Seed Sieve and solid bottom pan.



BOERNER WEIGHT PER BUSHEL APPARATUS NO. 40

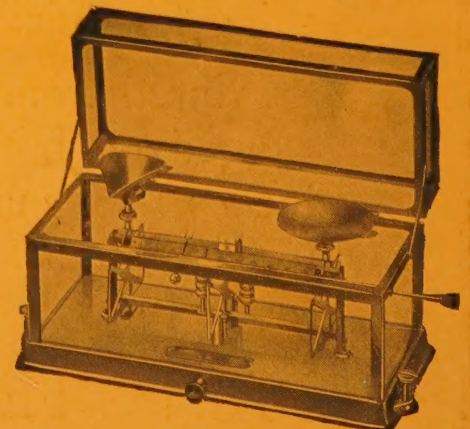
Latest type approved by the Government. To obtain the accurate "weight per bushel"—impossible by the common practice of pouring into the bucket at varying height, sinking the bucket in the grain and putting it in by hand, or pulling the bucket through the grain, packed or loose, with a long or short sweep, etc. This apparatus was designed by Mr. E. G. Boerner of the U. S. Department of Agriculture. The double beam is graduated as follows:

Lower Bar—1 to 60 pounds per bushel. Upper bar—Top line 1/10 pound to 13 pounds per bushel; middle line 2 grams to 200 grams; bottom line 1 per cent to 100 per cent of 200 grams.



TORSION BALANCE SCALE NO. 5055

A fine balance for delicate weighing and the analysis of seed and grain. Capacity 120 grams, sensitiveness 2 milligrams. Riderbeam 1 gram by .01 gram or if specified 500 milligrams by 5 milligrams. Size 13x8 1/4 x 6 1/2 inches. Brass weights in mahogany case 2-20 grams to 1 gram.



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